



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

26E 190100501943
Stanford University Libraries

AMERICAN
MATHEMATICAL SOCIETY.

Organized as the New York Mathematical Society, November, 1888.

Reorganized as the American Mathematical Society, July, 1894.

ANNUAL REGISTER
AND
CATALOGUE OF THE LIBRARY.

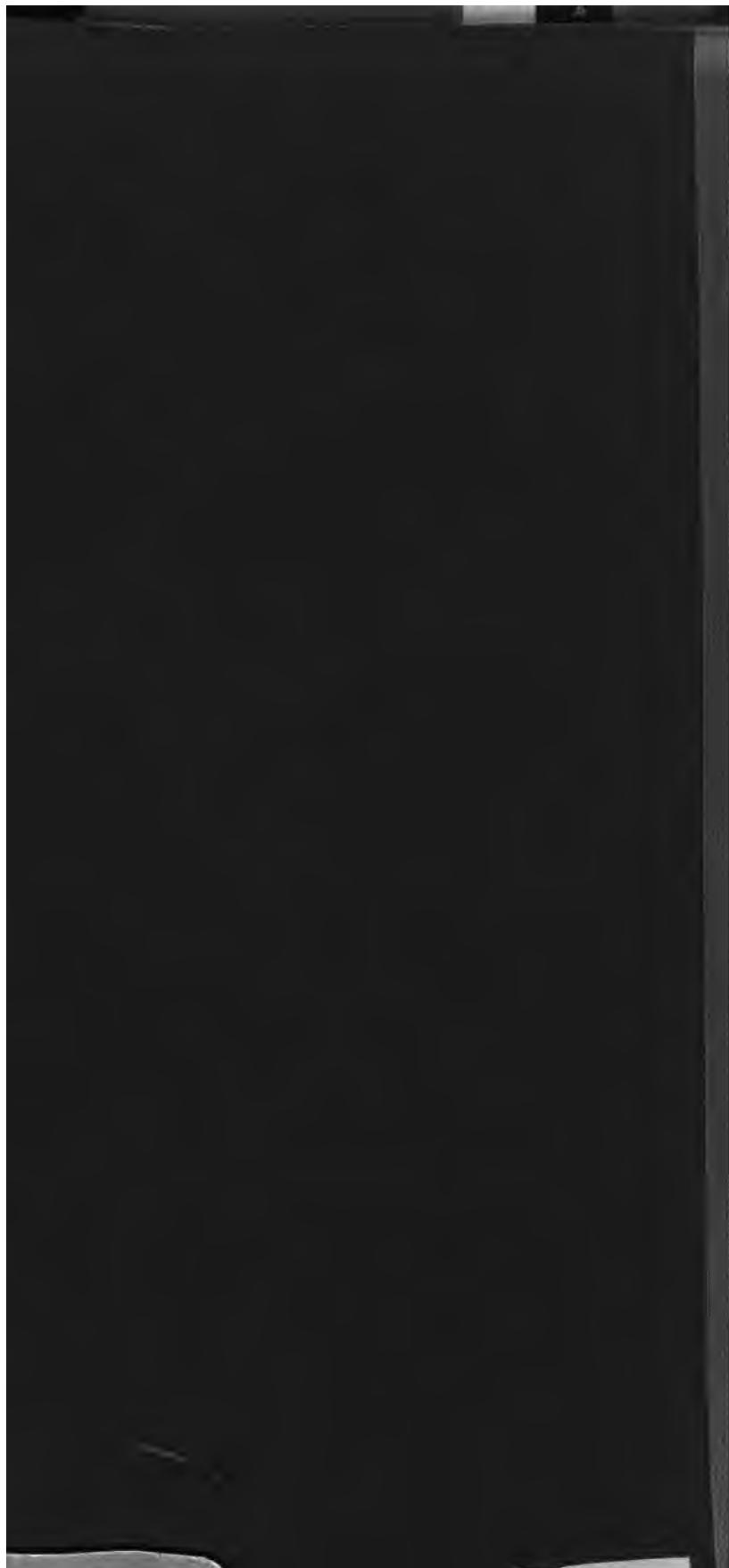
JANUARY, 1903.

NEW YORK:
PUBLISHED BY THE SOCIETY.
501 WEST 116TH STREET,
1903.

510.6

MATH





510.6
A 5122

AMERICAN MATHEMATICAL SOCIETY.

Organized as the New York Mathematical Society, November, 1888.

Reorganized as the American Mathematical Society, July, 1894.

ANNUAL REGISTER AND CATALOGUE OF THE LIBRARY.

JANUARY, 1903.

NEW YORK:
PUBLISHED BY THE SOCIETY.
501 WEST 116TH STREET,
1903.

206222

PRINTED ON
THE NEW ERA PRINTING COMPANY
Lancaster, Pa.

MARAU dachmarte

DIRECTORY.

Offices of the Secretary, Librarian, and Committee of Publication,
501 West 116th Street, New York, N. Y.

Office of the Treasurer,
8 East 49th Street, New York, N. Y.

Secretary of the Chicago Section,
THOMAS F. HOLGATE, 617 Hamline Street, Evanston, Ill.

Secretary of the San Francisco Section,
G. A. MILLER, Stanford University, Cal.

Changes of address should be immediately communicated to the Secretary for entry in the mailing lists of the Society.

Membership dues should be remitted to Dr. W. S. DENNETT, Treasurer, 8 East 49th Street, New York, N. Y., by draft or money order, drawn payable to the AMERICAN MATHEMATICAL SOCIETY.

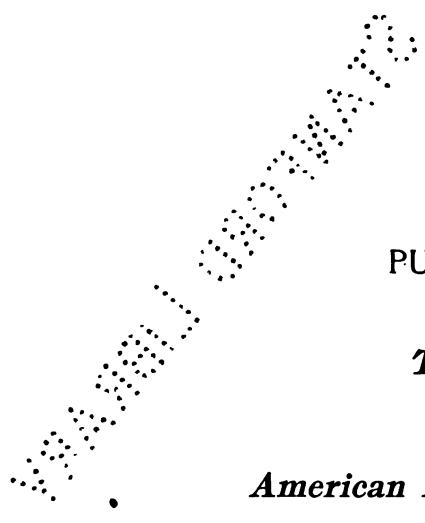
The following dates have been fixed for the meeting of the Society during the year 1903 :

Saturday, February 28,	Saturday, October 31,
Saturday, April 25,	Mon.-Tu., December 28-29.

The meeting of December 28-29 will be the Annual Meeting of the Society for the election of officers.

Meetings of the Chicago Section will be held in April and during the Christmas holidays ; of the San Francisco Section in May and December.

Papers intended for presentation at any meeting or sectional meeting of the Society should be sent to the Secretary or Secretary of the Section in advance of the meeting for submission to the Programme Committee, and should be accompanied by an abstract, suitable for publication in the BULLETIN, and a statement of the time required for presentation. Blanks for the entry of abstracts will be furnished by the Secretaries, on application.



PUBLICATIONS.

Transactions *of the* **American Mathematical Society.**

EDITED BY

ELIAKIM HASTINGS MOORE,
ERNEST WILLIAM BROWN, THOMAS SCOTT FISKE,

with the coöperation of

JAMES HARKNESS, E. B. VAN VLECK, H. S. WHITE,
C. L. BOUTON, L. E. DICKSON,
J. I. HUTCHINSON, EDWARD KASNER, M. B. PORTER.

Published quarterly by the Society with the support of

HARVARD UNIVERSITY,	NORTHWESTERN UNIVERSITY,
YALE UNIVERSITY,	CORNELL UNIVERSITY,
PRINCETON UNIVERSITY,	THE UNIVERSITY OF CALIFORNIA,
COLUMBIA UNIVERSITY,	BRYN MAWR COLLEGE,
HAVERFORD COLLEGE,	THE UNIVERSITY OF CHICAGO.

The TRANSACTIONS is devoted primarily to research in pure and applied mathematics, and is the official organ of the Society for the publication of important original papers read before it. The first number appeared in January, 1900.

Publication Agents, The Macmillan Company, 66 Fifth Avenue, New York, N. Y. Subscription price \$5.00 per annum; to members of the Society \$3.75 per annum.

PUBLICATIONS.

Bulletin of the American Mathematical Society.

CONTINUATION OF THE BULLETIN OF THE NEW YORK MATHEMATICAL SOCIETY.

A HISTORICAL AND CRITICAL REVIEW OF MATHEMATICAL SCIENCE.

EDITED BY

F. N. COLE, A. ZIWET, D. E. SMITH, F. MORLEY.

The BULLETIN contains a large number of critical reviews of mathematical treatises and text-books, a complete monthly list of new mathematical publications, notes on current events in the mathematical world, addresses before mathematical societies, reports on progress in various branches of the science, reports of the meetings of the Society and of other mathematical societies and congresses, and many shorter original articles.

Published for the Society by The Macmillan Company, 66 Fifth Avenue, New York, N. Y. Issued monthly, except August and September. Sent free to members of the Society. Subscription price to non-members \$5.00. Members of the Society are entitled to receive back volumes of the present Series to complete their sets at \$4.00 per volume. The few sets of the Old Series, 1891-1894, still remaining in stock are at present sold for \$15 per set of three volumes.

Books for review and manuscripts intended for publication in the BULLETIN should be sent to one of the members of the Committee of Publication. Subscriptions to the BULLETIN and orders for back numbers should be addressed to The Macmillan Company.

PUBLICATIONS.

Published Papers Vol. I.

**MATHEMATICAL PAPERS READ AT THE INTERNATIONAL
MATHEMATICAL CONGRESS HELD IN CONNECTION
WITH THE WORLD'S COLUMBIAN EXPO-
SITION, CHICAGO, 1893.**

EDITED BY THE COMMITTEE OF THE CONGRESS:

**E. HASTINGS MOORE, OSKAR BOLZA, HEINRICH MASCHKE,
HENRY S. WHITE.**

Containing papers by Bolza, Burkhardt, Capelli, Cole, Dyck, Echols, Eddy, Fricke, Halsted, Heffter, Hermite, Hilbert, Hurwitz, Klein, Krause, Lemoine, Lerch, Macfarlane, Martin, Maschke, Meyer, Minkowski, Moore, Netto, Noether, D'Ocagne, Paladini, de Perott, Pervouchine, Pincherle, Pringsheim, Sawin, Schlegel, Schoenflies, Stringham, Study, Taber, Weber, Weyr.

Published for the Society by The Macmillan Company, 1896.
8vo, pp. 411. Price, \$4.00; to members of the Society, \$3.00.

OFFICERS PAST AND PRESENT.

PRESIDENT.

J. H. VAN AMRINGE, 1888-1890, SIMON NEWCOMB, 1896-1898,
EMORY MCCLINTOCK, 1890-1894, R. S. WOODWARD, 1898-1900,
G. W. HILL, 1894-1896, ELIAKIM H. MOORE, 1900-1902,
THOMAS S. FISKE, 1902- .

VICE-PRESIDENTS.

EMORY MCCLINTOCK, 1889-1890, ELIAKIM H. MOORE, 1897-1900,
J. K. REES, 1890-1891, THOMAS S. FISKE, 1898-1901,
HENRY B. FINE, 1891-1893, HENRY S. WHITE, 1900-1901,
G. W. HILL, 1893-1894, MAXIME BOCHE, 1901-1902,
HUBERT A. NEWTON, 1894-1896, FRANK MORLEY, 1901-1902,
R. S. WOODWARD, 1896-1898, W. F. OSGOOD, 1902- ,
ALEXANDER ZIWET, 1902- .

SECRETARY.

THOMAS S. FISKE, 1888-1895, F. N. COLE, 1895- .

TREASURER.

HAROLD JACOBY, 1891-1894, HAROLD JACOBY, 1896-1899,
R. S. WOODWARD, 1894-1896, W. S. DENNET, 1899- .

LIBRARIAN.

D. A. MURRAY, 1892-1893, EDWARD L. STABLER, 1894-1895,
GUSTAV LEGRAS, 1893-1894, POMEROY LADUE, 1895-1901,
D. E. SMITH, 1901- .

COMMITTEE OF PUBLICATION.

THOMAS S. FISKE, 1891-1899, FRANK MORLEY, 1894-1898,
HAROLD JACOBY, 1891-1893, F. N. COLE, 1898- ,
ALEXANDER ZIWET, 1893- , FRANK MORLEY, 1899-1902,
D. E. SMITH, 1902- .

MEMBERS OF THE COUNCIL.

OFFICERS.

THOMAS S. FISKE, *President.*

W. F. OSGOOD, } *Vice-Presidents.*
ALEXANDER ZIWET,

F. N. COLE, *Secretary.*

W. S. DENNET, *Treasurer.*

D. E. SMITH, *Librarian.*

F. N. COLE, }
ALEXANDER ZIWET, } *Committee of Publication.*
D. E. SMITH.

EX-OFFICIO MEMBERS.

J. H. VAN AMRINGE,	EMORY MCCLINTOCK,	G. W. HILL,
SIMON NEWCOMB,	R. S. WOODWARD,	E. H. MOORE.

OTHER MEMBERS.

To Serve until December, 1903.

E. W. BROWN,	T. F. HOLGATE,
H. B. FINE,	W. F. OSGOOD.

To Serve until December, 1904.

POMEROY LADUE,	P. F. SMITH,
G. A. MILLER,	E. B. VAN VLECK.

To Serve until December, 1905.

JAMES HARKNESS,	IRVING STRINGHAM,
HEINRICH MASCHKE,	H. W. TYLER.

MEMBERS OF THE SOCIETY.

JANUARY 1, 1903.

Date of Admission.		Life members are designated by *.
1892,	Nov.	ABBE, CLEVELAND, B.Sc., M.A., Ph.D., LL.D.; Member of the National Academy of Sciences; Member of the Astronomische Gesellschaft; F.R.A.S.; Member of the Deutsche Mathematiker-Vereinigung; Editor of the <i>Monthly Weather Review</i> ; Professor of Meteorology, U. S. Weather Bureau; Professor of Meteorology, Columbian University, Washington, D. C.; Lecturer in Meteorology, Johns Hopkins University, Baltimore, Md. <i>U. S. Weather Bureau</i> , Washington, D. C.
1891,	Nov.	ALEY, ROBERT JUDSON, M.A., Ph.D. (Pennsylvania); Member of the London Mathematical Society; Member of the Deutsche Mathematiker-Vereinigung; Member of the Edinburgh Mathematical Society; Professor of Mathematics, University of Indiana, Bloomington, Ind. <i>203 Forest Place</i> .
1901,	Dec.	ALLARDICE, ROBERT EDGAR, M.A.; Fellow of the Royal Society of Edinburgh; Member of the Edinburgh Mathematical Society; Professor of Mathematics, Stanford University, Cal.
1897,	Dec.	ALLEN, JOSEPH, M.A., Instructor in Mathematics, College of the City of New York. <i>162 East 79th Street</i> , New York, N. Y.
1901,	Dec.	ANDREWS, GRACE, B.Sc., Ph.D. (Columbia). <i>125 East 57th Street</i> , New York, N. Y.
1901,	Oct.	ASHTON, CHARLES HAMILTON, M.A.; Instructor in Mathematics, Harvard University, Cambridge, Mass. <i>31 Maple Avenue</i> .
1891,	June	BAKER, ALFRED, M.A.; Fellow of the Royal Society of Canada; Member of the Société Mathématique de France; Professor of Mathematics, University of Toronto, Toronto, Canada.
1891,	Feb.	BAKER, ARTHUR LATHAM, C.E., Ph.D.; Professor of Mathematics, Manual Training High School, Brooklyn, N. Y.

Date of Admission.		
1891,	Apr.	BAKER, MARCUS, M.A.; Editor of the <i>Proceedings of the Washington Academy of Sciences</i> ; Cartographer, U. S. Geological Survey, Washington, D. C.
1902,	Oct.	BALL, SIR ROBERT STAWELL, LL.D., D.Sc.; F.R.S.; Fellow of the Cambridge Philosophical Society; Fellow of the Royal Society of Edinburgh; Member of the Royal Irish Academy; F.R.A.S.; Lowndean Professor of Astronomy and Geometry in the University of Cambridge and Director of the Observatory. <i>The Observatory</i> , Cambridge, England.
1894,	Oct.	BARNUM, CHARLOTTE CYNTHIA, B.A., Ph.D. (Yale); U. S. Coast and Geodetic Survey, Washington, D. C.
1892,	Apr.	BARTON, SAMUEL MARX, B.A., Ph.D.; Professor of Mathematics, University of the South, Sewanee, Tenn.
1891,	Apr.	BASS, EDGAR WALES, Graduate of the U. S. Military Academy; Colonel U. S. Army, retired. <i>77 Park Avenue</i> , New York, N. Y.
1900,	Dec.	BAUER, GEORGE NEANDER, M.Sc., Ph.D. (Columbia); Instructor in Mathematics, University of Minnesota, Minneapolis, Minn.
1899,	Dec.	BEEBE, WILLIAM, M.A.; Professor of Mathematics, Yale University, New Haven, Conn. <i>262 Bradley Street</i> .
1891,	Apr.	BEMAN, WOOSTER WOODBUFF, M.A.; Member of the London Mathematical Society; Member of the Deutsche Mathematiker-Vereinigung; Professor of Mathematics, University of Michigan, Ann Arbor, Mich. <i>813 East Kingsley Street</i> .
1901,	Oct.	BENEDICT, HARRY YANDELL, M.A., Ph.D. (Harvard); Adjunct Professor of Mathematics and Astronomy, University of Texas, Austin, Texas.
1900,	Dec.	BENTON, JOHN ROBERT, B.A., B.Sc., Ph.D. (Göttingen). <i>1000 M Street N. W.</i> , Washington, D. C.
1897,	Feb.	*BERRY, ARTHUR, M.A.; Member of the London Mathematical Society; Fellow of the Cambridge Philosophical Society; F.R.A.S.; Fellow and Assistant Tutor in Mathematics, King's College, Cambridge, England.
1902,	Apr.	BIKLÉ, CHARLES EARL, M.A.; Adjunct Professor of Mathematics, Teachers College, Columbia University, New York, N. Y.
1891,	Dec.	BLAKE, EDWIN MORTIMER, E.M., Ph.D. (Columbia); Member of the Société Mathématique de France; Instructor in Mathematics, University of California, Berkeley, Cal. <i>1910 Addison Street</i> .

Date of Admission.		
1900, Dec.	BLICHFELDT, HANS FREDERIK, M.A., Ph.D. (Leipsic); Assistant Professor of Mathematics, Stanford University, Cal.	
1900, Dec.	BLISS, GILBERT AMES, B.A., M.Sc., Ph.D. (Chicago); Member of the Deutsche Mathematiker-Vereinigung; Instructor in Mathematics, University of Minnesota, Minneapolis, Minn. <i>Weender Chaussee 5, Göttingen, Germany.</i>	
1892, Apr.	BÖCHER, MAXIME, B.A., Ph.D. (Göttingen); Member of the Deutsche Mathematiker-Vereinigung; Editor of the <i>Annals of Mathematics</i> ; Assistant Professor of Mathematics, Harvard University, Cambridge, Mass. <i>14 Avon Street.</i>	
1899, Oct.	BOGARTE, MARTIN EUGENE, M.A.; Professor of Mathematics, Northern Indiana Normal School, Valparaiso, Ind. <i>College Avenue and Locust Street.</i>	
1891, Nov.	BOLZA, OSKAR, Ph.D. (Göttingen); Member of the Deutsche Mathematiker-Vereinigung; Professor of Mathematics, University of Chicago, Chicago, Ill.	
1898, Dec.	BOUTON, CHARLES LEONARD, M.Sc., M.A., Ph.D. (Leipsic); Member of the Deutsche Mathematiker-Vereinigung; Associate Editor of the <i>Transactions of the American Mathematical Society</i> ; Instructor in Mathematics, Harvard University, Cambridge, Mass. <i>503 Craigie Hall.</i>	
1900, Dec.	BOWDEN, JOSEPH, B.A., Ph.D. (Yale); Professor of Mathematics, Adelphi College, Brooklyn, N. Y. <i>18 Clifton Place.</i>	
1891, June	BOWSER, EDWARD ALBERT, C.E., LL.D.; Professor of Mathematics, Rutgers College, New Brunswick, N. J.	
1902, Feb.	BRAND, EDWARD, M.A.; Professor of Mathematics, Howard College, East Lake, Ala.	
1901, Dec.	BRASEFIELD, STANLEY EUGENE, C.E., M.Sc.; Instructor in Mathematics and Graphics, Lafayette College. Easton, Pa. <i>327 Center Street.</i>	
1902, Sept.	BROMWICH, THOMAS JOHN I'ANSON, M.A.; Member of the London Mathematical Society; Fellow of the Cambridge Philosophical Society; Member of the Deutsche Mathematiker-Vereinigung; Professor of Mathematics, Queen's College, Galway; Examiner in Mathematics, Royal University of Ireland; Fellow of St. John's College, Cambridge, England. <i>Queen's College</i> , Galway, Ireland.	

Date of
Admission.

1901, Dec.	BROOKE, WILLIAM ELLSWORTH, B.C.E., M.A.; Instructor in Mathematics, University of Minnesota, Minneapolis, Minn.
1891, June	BROOKS, JOHN MILTON, M.A.; U. S. Coast and Geodetic Survey, Washington, D. C.
1893, Dec.	BROWN, EDWARD LEROY, M.A.; Principal of the North Side High School, Denver, Col. 2623 West 27th Avenue.
1892, Feb.	*BROWN, ERNEST WILLIAM, M.A., Sc.D. (Cambridge); F.R.S.; Member of the London Mathematical Society; Fellow of the Cambridge Philosophical Society; F.R.A.S.; Editor of the <i>Transactions of the American Mathematical Society</i> ; Professor of Mathematics, Haverford College, Haverford, Pa.
1900, Oct.	BROWN, GEORGE LINCOLN, M.Sc., Ph.D. (Chicago); Professor of Mathematics and Astronomy, South Dakota Agricultural College, Brookings, South Dakota.
1902, Sept.	*BROWN, J. STANFORD, Ph.B., M.A.; New York Realty and Trust Company, 489 5th Avenue, New York, N. Y.
1899, Aug.	*BULLARD, WARREN GARDNER, B.A., Ph.D. (Clark); Member of the Deutsche Mathematiker-Vereinigung; Associate Professor of Mathematics, Syracuse University, Syracuse, N. Y. 722 Irving Avenue.
1891, June	BULLIS, ABRAM ROGERS, B.Sc., B.C.E. Macedon, Wayne County, N. Y.
1891, Apr.	BYERLY, WILLIAM ELWOOD, M.A., Ph.D. (Harvard); Editor of the <i>Annals of Mathematics</i> ; Professor of Mathematics, Harvard University, Cambridge, Mass. 39 Hammond Street.
1891, June	CAIN, WILLIAM, C.E., M.A.; Professor of Mathematics, University of North Carolina, Chapel Hill, N. C.
1899, Apr.	CAJORI, FLORIAN, M.Sc., Ph.D.; Member of the Deutsche Mathematiker-Vereinigung; Professor of Mathematics, Colorado College, Colorado Springs, Colo. 1119 Wood Avenue.
1900, Dec.	CAMPBELL, DONALD FRANCIS, Ph.D. (Harvard); Associate Professor of Mathematics, Armour Institute of Technology, Chicago, Ill.
1897, Oct.	CAPRON, PAUL, M.A.; Teacher of Mathematics, Dummer Academy, South Byfield, Mass.
1896, Apr.	CHASE, ARNOLD BUFFUM, M.A., D.Sc. (Brown). Valley Falls, R. I.

Date of Admission.		
1891, May	CHANDLER, CHARLES HENRY, M.A.; Professor of Mathematics, Ripon College, Ripon, Wis.	
1895, Nov.	CHESSIN, ALEXANDER S., M.A., C.E., Ph.D.; Professor of Mathematics, Washington University, St. Louis, Mo.	
1895, Nov.	CHITTENDEN, J. BRACE, B.Sc., M.A., Ph.D. (Königsberg); Professor of Mathematics, Brooklyn Polytechnic Institute, Brooklyn, N. Y.	
1891, Apr.	CLARK, JOHN EMORY, M.A.; Emeritus Professor of Mathematics, Yale University, New Haven, Conn. <i>34 South Park Terrace</i> , Longmeadow, Mass.	
1900, Dec.	CLARKE, JOHN EASTMAN, B.A., Ph.D. (Boston); Principal of the Gilbert School, Winsted, Conn.	
1896, Sept.	CLUTZ, FRANK HOLLINGER, B.A., Ph.D. (Johns Hopkins); Civil Engineer, Union Pacific Railroad, Kansas City, Mo. <i>Atchison, Kans.</i>	
1902, Dec.	COBLE, ARTHUR B., M.A., Ph.D. (Johns Hopkins); Instructor in Mathematics, University of Missouri, Columbia, Mo.	
1893, Feb.	COHEN, ABRAHAM, B.A., Ph.D. (Johns Hopkins); Co-editor of the <i>American Journal of Mathematics</i> ; Associate in Mathematics, Johns Hopkins University, Baltimore, Md.	
1891, Apr.	COLE, FRANK NELSON, B.A., Ph.D. (Harvard); Editor of the <i>Bulletin of the American Mathematical Society</i> ; Professor of Mathematics, Columbia University, New York, N. Y.	
1899, Dec.	COLLINS, JOSEPH VICTOR, Ph.B., Ph.D.; Teacher of Mathematics, State Normal School, Stevens Point, Wis. <i>217 Division Street.</i>	
1898, Feb.	COMSTOCK, ELTING HOUGHTALING, B.Sc.; Principal of High School, Houghton, Mich. <i>P. O. Box 221.</i>	
1892, Oct.	CONANT, LEVI LEONARD, M.A., Ph.D.; Editor of the <i>Journal of the Worcester Polytechnic Institute</i> ; Professor of Mathematics, Worcester Polytechnic Institute, Worcester, Mass.	
1900, Dec.	CONOSCENTE, EUPLIO, B.Sc., Math.D. (Palermo); Member of the Circolo Matematico di Palermo. Newark, N. J. <i>2 Cottage Street.</i>	
1900, June	COOLIDGE, JULIAN LOWELL, B.A., B.Sc.; Instructor in Mathematics, Harvard University, Cambridge, Mass. <i>10 Craigie Street.</i>	

Date of Admission.		
1902,	Dec.	CORNISH, WILLIAM AARON, B.A.; Instructor in Mathematics, State Normal School, Cortland, N. Y. <i>2 Stewart Place.</i>
1900,	Dec.	CRATHORNE, ARTHUR R., B.A.; Instructor in Mathematics, University of Wisconsin, Madison, Wis. <i>University Heights.</i>
1891,	Apr.	CRAWLEY, EDWIN SCHOFIELD, B.Sc., Ph.D.; Member of the Deutsche Mathematiker-Vereinigung; Thomas A. Scott Professor of Mathematics, University of Pennsylvania, Philadelphia, Pa.
1891,	Dec.	CUNNINGHAM, SUSAN J., Professor of Mathematics and Astronomy, Swarthmore College, Swarthmore, Pa.
1900,	Dec.	CURJEL, HARALD WORTHINGTON, M.A.; Member of the London Mathematical Society. Birkdale, Southport, Lancashire, England. <i>18 Welbeck Road.</i>
1902,	Feb.	CURTISS, DAVID RAYMOND, M.A. <i>48 Irving Street,</i> Cambridge, Mass.
1900,	Oct.	DAVIS, CHARLES HENRY, C.E.; Consulting Engineer. <i>25 Broad Street,</i> New York, N. Y.
1891,	Apr.	DAVIS, ELLERY WILLIAMS, B.Sc., Ph.D. (Johns Hopkins); Professor of Mathematics and Dean of the College of Literature, Science and the Arts, University of Nebraska, Lincoln, Neb.
1891,	Apr.	DAVIS, NATHANIEL FRENCH, M.A., LL.D.; Professor of Pure Mathematics, Brown University, Providence, R. I. <i>159 Brown Street.</i>
1900,	Dec.	DEFOE, LUTHER MARION, Assistant Professor of Mathematics, University of Missouri, Columbia, Mo.
1891,	May	DELONG, IRA MITCHELL, M.A.; Professor of Mathematics, University of Colorado, Boulder, Colo. <i>1341 Broadway.</i>
1895,	Jan.	DELURY, ALFRED TENNYSON, B.A.; Associate Professor of Mathematics, University of Toronto, Toronto, Can.
1892,	Jan.	DENNELL, WILLIAM SAWYER, B.A., M.D. <i>8 East 49th Street,</i> New York, N. Y.
1896,	Nov.	DICKSON, LEONARD EUGENE, B.Sc., M.A., Ph.D. (Chicago); Member of the London Mathematical Society; Associate Editor of the <i>Transactions of the American Mathematical Society;</i> Editor of the <i>American Mathematical Monthly;</i> Assistant Professor of Mathematics, University of Chicago, Chicago, Ill.

Date of Admission.		
1897,	Apr.	DOWLING, LINNÆUS WAYLAND, Ph.D. (Clark) ; Assistant Professor of Mathematics, University of Wisconsin, Madison, Wis. <i>University Heights.</i>
1901,	Feb.	DOWNEY, JOHN F., C.E., M.Sc., M.A. ; Professor of Mathematics, University of Minnesota, Minneapolis, Minn.
1902,	Apr.	DUKE, FRANK WILLIAMSON, B.A. ; Professor of Mathematics, Hollins Institute, Hollins, Va.
1902,	Oct.	DUNKEL, OTTO, M.E., M.A., Ph.D. (Harvard) ; Instructor in Mathematics, Wesleyan University, Middletown, Conn.
1891,	Apr.	DURELL, FLETCHER, B.A., Ph.D. ; Master in Mathematics, Lawrenceville School, Lawrenceville, N. J.
1891,	Apr.	DURFEE, WILLIAM PITTS, B.A., Ph.D. (Johns Hopkins) ; Professor of Mathematics and Dean of the Faculty, Hobart College, Geneva, N. Y. <i>639 Main Street.</i>
1900,	Dec.	EASTON, BURTON SCOTT, B.Sc., Ph.D. (Pennsylvania) ; Instructor in Mathematics, University of Pennsylvania, Philadelphia, Pa. <i>224 South 43d Street.</i>
1891,	Apr.	ECHOLS, WILLIAM HOLDING, B.Sc. ; Professor of Mathematics, University of Virginia, Charlottesville, Va.
1891,	Apr.	EDDY, HENRY TURNER, C.E., M.A., Ph.D., LL.D. ; Professor of Engineering and Mechanics, University of Minnesota, Minneapolis, Minn. <i>916 Sixth Street, S. E.</i>
1896,	Dec.	EDMONDSON, THOMAS WILLIAM, B.A., Ph.D. (Clark) ; Assistant Professor of Physics, New York University, University Heights, New York, N. Y.
1902,	Sept.	EDWARDS, GEORGE CUNNINGHAM, Ph.B. ; Associate Professor of Mathematics, University of California, Berkeley, Cal.
1897,	Feb.	EIESLAND, JOHN, B.Ph., Ph.D. (Johns Hopkins) ; Professor of Mathematics, Thiel College, Greenville, Pa.
1894,	June	EIMBECK, WILLIAM ; Assistant in the U. S. Coast and Geodetic Survey, Washington, D. C.
1900,	Dec.	EISENHART, LUTHER PFAHLER, B.A., Ph.D. (Johns Hopkins) ; Instructor in Mathematics, Princeton University, Princeton, N. J. <i>63 Little Hall.</i>
1898,	Feb.	*ELLIOTT, EDWIN BAILEY, M.A. ; F.R.S. ; Member of the London Mathematical Society ; F.R.A.S. ; Waynflete Professor of Pure Mathematics and Fellow of Magdalen College, Oxford, England. <i>4 Bardwell Road.</i>
1891,	May	ELY, ACHSAH MOUNT, B.A. ; Professor of Mathematics, Vassar College, Poughkeepsie, N. Y.

Date of Admission.	Name and Position
1896, Nov.	EMCH, ARNOLD, M.Sc., Ph.D. (Kansas); Assistant Professor of Pure and Applied Mathematics, University of Colorado, Boulder, Col.
1898, Apr.	ENGBERG, CARL CHRISTIAN, B.Sc., M.A., Ph.D. (Nebraska); Instructor in Mathematics, University of Nebraska, Lincoln, Neb.
1892, Mar.	ENGLE, EDMUND ARTHUR, M.A., Ph.D., LL.D.; President of the Worcester Polytechnic Institute, Worcester, Mass. <i>11 Boynton Street.</i>
1898, Oct.	ESCOTT, EDWARD BRIND, M.Sc.; Instructor in Mathematics, University of Michigan, Ann Arbor, Mich. <i>718 Monroe Street.</i>
1901, Dec.	ESTY, THOMAS CUSHING, M.A.; Professor of Mathematics, University of Rochester, Rochester, N. Y.
1891, May	ESTY, WILLIAM COLE, LL.D.; Professor of Mathematics and Astronomy, Amherst College, Amherst, Mass.
1899, Feb.	FAUGHT, JOHN BROOKIE, M.A., Ph.D.; Professor of Mathematics, Michigan Northern State Normal School, Marquette, Mich. <i>211 East Hewitt Avenue.</i>
1901, Feb.	FERRY, FREDERICK CARLOS, M.A., Ph.D. (Clark); Professor of Mathematics and Dean of the Faculty, Williams College, Williamstown, Mass.
1900, June	FIELD, PETER, M.Sc., Ph.D. (Cornell); Professor of Mathematics and Astronomy, Carthage College, Carthage, Ill.
1891, May	FIELDS, JOHN CHARLES, Ph.D. (Johns Hopkins); Member of the Société Mathématique de France; Special Lecturer in Mathematics, University of Toronto, Toronto, Canada. <i>62 Sussex Avenue.</i>
1901, Oct.	FINDLAY, WILLIAM, M.A., Ph.D. (Chicago); Tutor in Mathematics, Columbia University, New York, N. Y.
1891, May	FINE, HENRY BURCHARD, M.A., Ph.D. (Leipsic); Professor of Mathematics, Princeton University, Princeton, New Jersey.
1891, June	FINKEL, BENJAMIN FRANKLIN, M.A., M.Sc.; Member of the London Mathematical Society; Editor of the <i>American Mathematical Monthly</i> ; Professor of Mathematics and Physics, Drury College, Springfield, Mo. <i>1227 Clay Street.</i>
1899, Feb.	FISHBURNE, EDWARD BELL, JR., Ph.B., M.A.; President of the Hoge Military Academy, Blackstone, Va.

Date of Admission.		
1895,	Jan.	FISHER, IRVING, B.A., Ph.D. (Yale); Professor of Political Economy, Yale University, New Haven, Conn. <i>460 Prospect Street.</i>
1888,	Nov.	FISKE, THOMAS SCOTT, M.A., Ph.D. (Columbia); Member of the London Mathematical Society; Editor of the <i>Transactions of the American Mathematical Society</i> ; Professor of Mathematics, Columbia University, New York, N. Y.
1897,	Feb.	FITCH, ANNIE LOUISE MACKINNON (MRS. EDWARD), M.Sc., Ph.D. Clinton, N. Y.
1901,	Oct.	FITE, WILLIAM BENJAMIN, Ph.D. (Cornell); Instructor in Mathematics, Cornell University, Ithaca, N. Y. <i>110 Cook Street.</i>
1894,	Oct.	FLOWERS, ROBERT LEE, Graduate of the U. S. Naval Academy; Professor of Mathematics, Trinity College, Durham, N. C.
1900,	Feb.	FOCKE, ANNE BOSWORTH, B.Sc., Ph.D. (Göttingen). <i>106 Cutler Street</i> , Cleveland, O.
1900,	Apr.	FORD, ROBERT DALE, M.Sc.; Professor of Mathematics, St. Lawrence University, Canton, N. Y.
1899,	Aug.	*FORD, WALTER B., M.A.; Instructor in Mathematics, University of Michigan, Ann Arbor, Mich. <i>718 Monroe Street.</i>
1899,	Dec.	FORSYTH, ANDREW RUSSELL, Sc.D. (Cambridge, Dublin Victoria), LL.D.; F.R.S.; Corresponding Associate of the Reale Instituto Lombardo; Member of the London Mathematical Society; Member of Cambridge Philosophical Society; F.R.A.S.; Sadlerian Professor of Pure Mathematics and Fellow of Trinity College, Cambridge University, Cambridge, England.
1893,	Dec.	FRANKLAND, FREDERICK WILLIAM, F.I.A.; Member of the Actuarial Society of America; Associate Actuary of the New York Life Insurance Company. <i>346 Broadway</i> , New York, N. Y.
1892,	Dec.	FRANKLIN, FABIAN, Ph.B., Ph.D. (Johns Hopkins); Member of the London Mathematical Society. <i>1507 Park Avenue</i> , Baltimore, Md.
1897,	Mar.	FREELAND, WILLIAM, B.A. <i>27 West 44th Street</i> , New York, N. Y.
1895,	Nov.	FRIZELL, ARTHUR BOWES, M.A.; Instructor in Mathematics, Harvard University, Cambridge, Mass. <i>1200 Massachusetts Avenue.</i>

Date of Admission.	
1892, Oct.	GABLE, GEORGE DANIEL, M.A., Ph.D.; Hunt Professor of Mathematics, Parsons College, Fairfield, Iowa.
1899, Oct.	GALE, ARTHUR SULLIVAN, B.A., Ph.D. (Yale); Instructor in Mathematics, Yale University, New Haven, Conn. 281 Willow Street.
1899, Aug.	GATES, FANNY COOK, M.L.; Associate Professor of Physics, The Woman's College, Baltimore, Md.
1894, Feb.	GENTRY, RUTH, B.Ph., Ph.D. (Bryn Mawr); Associate Principal and Head Teacher of Mathematics, Miss Gleim's School for Girls, Pittsburgh, Pa. 805 South Negley Avenue.
1897, Dec.	GERMANN, GEORGE B., B.A., Ph.D. (Columbia); Principal of Public School No. 94, Brooklyn, N. Y.
1901, Feb.	GERRANS, HENRY TRESAWNA, M.A.; Member of the London Mathematical Society; Member of the Edinburgh Mathematical Society; Member of the Société Mathématique de France; Fellow and Tutor of Worcester College, Oxford, England.
1891, Jan.	GILMAN, GEORGE HOUGHTON, M.A., LL.B., 41 Wall Street, New York, N. Y.
1892, June	GLAISHER, JAMES WHITBREAD LEE, M.A., Sc.D.; F.R.S.; F.R.A.S.; Editor of the <i>Messenger of Mathematics</i> and of the <i>Quarterly Journal of Pure and Applied Mathematics</i> ; Fellow of Trinity College, Cambridge, England.
1891, May	GLASHAN, JOHN CADENHEAD, LL.D.; Fellow of the Royal Society of Canada; Inspector of Public Schools, School Inspector's Office, Ottawa, Canada.
1896, Nov.	GLOVER, JAMES WATERMAN, M.A., Ph.D. (Harvard); Instructor in Mathematics, University of Michigan, Ann Arbor, Mich. 1209 South University Avenue.
1897, Oct.	GORE, JOHN KINSEY, M.A.; Member of the Actuarial Society of America; Actuary of the Prudential Insurance Company, Newark, N. J.
1902, Feb.	GOULD, ALICE BACHE, B.A. 405 Marlborough Street, Boston, Mass.
1897, May	GRANVILLE, WILLIAM ANTHONY, B.Ph., Ph.D. (Yale); Instructor in Mathematics, Yale University, New Haven, Conn. 487 Orange Street.
1891, June	GREEN, RUFUS LOT, B.Sc., M.A.; Professor of Mathematics, Stanford University, Cal.

Date of Admission.	
1897, Oct.	*GREENHILL, ALFRED GEORGE, M.A.; F.R.S.; Member of the London Mathematical Society; Professor of Mathematics, Ordnance College, Woolwich, England.
1900, June	GREENSTREET, WILLIAM JOHN, M.A.; Member of the London Mathematical Society; Member of the Edinburgh Mathematical Society; F.R.A.S.; Editor of the <i>Mathematical Gazette</i> ; Headmaster of the Marlins School, Stroud, England.
1901, Oct.	GREENWOOD, GEORGE WILLIAM, B.A.; Professor of Mathematics and Astronomy, McKendree College, Lebanon, Ill.
1893, Dec.	GRIFFITHS, IDA, B.A. 15 West 91st Street, New York, N. Y.
1899, Oct.	GROAT, BENJAMIN FELAND, B.Sc.; Assistant Professor of Mathematics and Mechanics, School of Mines, University of Minnesota, Minneapolis, Minn.
1894, June	GUMMERE, HENRY VOLKMAR, B.Sc., M.A.; Professor of Mathematics, Physics and Astronomy, Ursinus College, Collegeville, Montgomery County, Pa.
1902, Feb.	GUNDERSEN, CARL, M.A., Ph.D. (Columbia); Professor of Mathematics, La Grange College, La Grange, Mo.
1894, Aug.	HAGEN, JOHN GEORGE, S.J.; Director of the Georgetown College Observatory, Washington, D. C. <i>Georgetown University</i> .
1902, Dec.	HALL, ARTHUR GRAHAM, B.Sc., Ph.D. (Leipzig); Instructor in Mathematics, University of Michigan, Ann Arbor, Mich. 1036 Oakland Avenue.
1891, Nov.	HALL, ASAPH, JR., B.A., Ph.D. (Yale); Member of the Astronomische Gesellschaft, Professor of Astronomy and Director of the Observatory, University of Michigan, Ann Arbor, Mich.
1894, Oct.	HALLETT, GEORGE HERVEY, M.A., Ph.D.; Instructor in Mathematics, University of Pennsylvania, Philadelphia, Pa. <i>College Hall</i> .
1891, May	HALSTED, GEORGE BRUCE, M.A., Ph.D. (Johns Hopkins); Member of the Société Mathématique de France; Member of the Circolo Matematico di Palermo; Member of the London Mathematical Society; Co-editor of <i>Le Matematiche</i> ; Professor of Mathematics, University of Texas, Austin, Texas. 2407 Guadalupe Street.
1899, Aug.	HAMMERSLOUGH, CARRIE, M.A. 1215 Madison Avenue, New York, N. Y.

Date of Admission.		
1901,	Oct.	HANAWALT, FRANCIS WAYLAND, M.A.; Professor of Mathematics and Astronomy, Iowa Wesleyan University, Mount Pleasant, Ia. <i>403 North White Street.</i>
1902,	Dec.	HANCOCK, EDWARD LEE, M.Sc.; Instructor in Mathematics, Purdue University, Lafayette, Ind. <i>222 South 9th Street.</i>
1895,	Apr.	HANCOCK, HARRIS, B.A., Ph.D. (Berlin), D.Sc. (Paris); Member of the London Mathematical Society; Member of the Société Mathématique de France; Member of the Deutsche Mathematiker-Vereinigung; Professor of Mathematics, University of Cincinnati, Cincinnati, Ohio. <i>Auburn Hotel, Mount Auburn.</i>
1900,	Dec.	HANNA, ULYSSES S., M.A.; Assistant Professor of Mathematics, Indiana University, Bloomington, Ind. <i>828 Atwater Avenue.</i>
1894,	Feb.	*HARDCastle, FRANCES, Member of the London Mathematical Society. <i>14 Huntingdon Road, Cambridge, England.</i>
1902,	Apr.	HARDY, JAMES GRAHAM, M.A., Ph.D.; Instructor in Mathematics, Williams College, Williamstown, Mass.
1891,	May	*HARKNESS, JAMES, M.A.; Associate Editor of the <i>Transactions of the American Mathematical Society</i> ; Professor of Mathematics, Bryn Mawr College, Bryn Mawr, Pa.
1891,	Apr.	HART, JAMES NORRIS, C.E., M.Sc.; Professor of Mathematics and Astronomy, University of Maine, Orono, Me.
1899,	Dec.	HASKELL, MELLEN WOODMAN, M.A., Ph.D. (Göttingen); Member of the Deutsche Mathematiker-Vereinigung; Associate Professor of Mathematics, University of California, Berkeley, Cal. <i>P. O. Box 3.</i>
1891,	May	HATHAWAY, ARTHUR STAFFORD, B.Sc., Professor of Mathematics, Rose Polytechnic Institute, Terre Haute, Ind. <i>2206 North 10th Street.</i>
1901,	Feb.	HAVILAND, EDWIN, JR., B.Sc., M.A.; Professor of Mathematics, Clarkson School of Technology, Potsdam, N. Y. <i>P. O. Box 253.</i>
1898,	Aug.	HAWKES, HERBERT EDWIN, B.A., Ph.D. (Yale); Instructor in Mathematics, Yale University, New Haven, Conn. <i>20 Carmel Street.</i>
1894,	Aug.	HAY, GUSTAVUS, B.A., M.D. <i>383 Marlborough Street, Boston, Mass.</i>
1901,	Aug.	HEDRICK, EARLE RAYMOND, M.A., Ph.D. (Göttingen); Instructor in Mathematics, Sheffield Scientific School, Yale University, New Haven, Conn. <i>13 Park Street.</i>

Date of Admission.	
1900, Dec.	HEWES, LAURENCE ILSLEY, B.Sc., Ph.D. (Yale); Professor of Mathematics, Rhode Island College of Agriculture and Mechanic Arts, Kingston, R. I.
1892, Dec.	HILL, GEORGE WILLIAM, Ph.D., Sc.D., LL.D., Ex-PRESIDENT; Member of the National Academy of Sciences; Foreign Member of the Royal Society of London; Foreign Associate of the Royal Astronomical Society. West Nyack, N. Y.
1895, Nov.	HILL, JOHN ETHAN, Ph.D. (Clark); Instructor in Mathematics, University of West Virginia, Morgantown, W. Va.
1898, Dec.	HIMOWICH, ADOLPH A., M.Sc., M.D. <i>130 Henry Street</i> , New York, N. Y.
1894, Mar.	HITCHCOCK, FANNY R. M., Ph.D.; Philadelphia, Pa. <i>4038 Walnut Street</i> .
1902, Apr.	HODOKINS, HOWARD LINCOLN, M.A., Ph.D. (Columbian); Dean and Professor of Mathematics, Corcoran Scientific School, Columbian University, Washington, D. C.
1895, Feb.	HOLGATE, THOMAS FRANKLIN, M.A., Ph.D. (Clark); Professor of Applied Mathematics and Dean of the College of Liberal Arts, Northwestern University, Evanston, Ill. <i>617 Hamline Street</i> .
1880, June	HOLLADAY, WALLER, B.Sc., C.E., M.E.; Emeritus Professor of Mathematics, Cooper Institute; Mathematician of the Equitable Life Assurance Society, <i>120 Broadway</i> , New York, N. Y.
1902, Dec.	HOSKINS, LEANDER MILLER, C.E., M.Sc.; Professor of Applied Mathematics, Stanford University, Palo Alto, Cal.
1891, May	HOWE, CHARLES SUMNER, M.Sc., Ph.D.; Professor of Mathematics and Astronomy, Case School of Applied Science, Cleveland, Ohio.
1891, May	HOWE, HERBERT ALONZO, M.A., Sc.D.; Member of the Astronomische Gesellschaft; Director of the Chamberlin Observatory of the University of Denver, University Park, Col.
1891, May	HULBURT, LORRAIN SHERMAN, B.A., Ph.D. (Johns Hopkins); Collegiate Professor of Mathematics, Johns Hopkins University, Baltimore, Md.
1901, Oct.	HUNTINGTON, EDWARD VERMILYE, M.A., Ph.D. (Strassburg); Member of the Deutsche Mathematiker-Vereinigung; Editor of the <i>Annals of Mathematics</i> ; Instructor in Mathematics, Harvard University, Cambridge, Mass. <i>85 Fairfax Hall</i> .

Date of Admission.		
1891, Apr.		HUSSEY, WILLIAM J., B.Sc.; Astronomer in the Lick Observatory, Mt. Hamilton, Cal.
1896, Nov.		HUTCHINSON, JOHN IRWIN, B.A., Ph.D. (Chicago); Associate Editor of the <i>Transactions of the American Mathematical Society</i> ; Instructor in Mathematics, Cornell University, Ithaca, N. Y. <i>Cornell Heights</i> .
1891, May		HYDE, EDWARD WYLlys, C.E. <i>814 Lincoln Avenue, Station D</i> , Cincinnati, Ohio.
1891, June		IRELAND, OSCAR BROWN, M.A.; President of the Actuarial Society of America; Actuary of the Massachusetts Mutual Life Insurance Company, Springfield, Mass. <i>P. O. Box 1608</i> .
1902, Apr.		IVEY, J. N., M.A., Ph.D. (Berlin); Instructor in Mathematics, Tulane University, New Orleans, La. <i>1649 Palmer Avenue</i> .
1901, Dec.		JACKSON, LAMBERT LINCOLN, M.A.; Head of the Department of Mathematics, State Normal School, Brockport, N. Y. <i>108 Monroe Avenue</i> .
1892, Jan.		JACOBUS, DAVID S., M.E.; Professor of Experimental Mechanics and Engineering Physics, Stevens Institute of Technology, Hoboken, N. J.
1888, Nov.		JACOBY, HAROLD, Ph.D. (Columbia); Member of the Astronomische Gesellschaft; F.R.A.S.; Adjunct Professor of Astronomy, Columbia University, New York, N. Y. <i>333 West 76th Street</i> .
1893, Feb.		JAMES, JOHN NELSON, B.A. Halle, Germany. <i>Karlstrasse 23</i> .
1897, Apr.		JOFFE, S. A., M.Sc.; Mutual Life Insurance Company of New York. <i>92 Nassau Street</i> , New York, N. Y.
1891, Mar.		JOHNSON, WILLIAM WOOLSEY, M.A.; Member of the London Mathematical Society; Professor of Mathematics, U. S. Naval Academy, Annapolis, Md.
1899, Oct.		KASNER, EDWARD, M.A., Ph.D. (Columbia); Associate Editor of the <i>Transactions of the American Mathematical Society</i> ; Tutor in Mathematics, Columbia University, New York, N. Y. <i>121 East 114th Street</i> .
1891, Dec.		KENNELLY, A. E., D.Sc., F.R.A.S. Harvard University, Cambridge, Mass.
1900, Dec.		KENYON, ALFRED MONBOE, M.A.; Associate Professor of Mathematics, Purdue University, Lafayette, Ind. <i>409 University Avenue</i> , West Lafayette.

Date of Admission.		
1892,	Oct.	KEBR, WILLIAM JASPER, D.Sc.; President of the Agricultural College of Utah, Logan, Utah.
1891,	Apr.	KERSHNER, JEFFERSON E., M.A., Ph.D. (Yale); Professor of Mathematics, Franklin and Marshall College, Lancaster, Pa. <i>337 West Walnut Street.</i>
1897,	Aug.	KEYSER, CASSIUS JACKSON, B.Sc., M.A., Ph.D. (Columbia); Instructor in Mathematics, Columbia University, New York, N. Y.
1891,	Dec.	KNISELY, ALEXANDER, B.Sc. Columbia City, Ind.
1901,	Oct.	KUHN, HARRY WALDO, Ph.D. (Cornell); Assistant Professor of Mathematics, Ohio State University, Columbus, Ohio. <i>215 West 10th Avenue.</i>
1894,	Apr.	*LADUE, POMEROY, B.Sc.; Professor of Mathematics, New York University, New York, N. Y. <i>University Heights.</i>
1893,	Dec.	LAMBERT, PRESTON ALBERT, M.A.; Assistant Professor of Mathematics, Lehigh University, South Bethlehem, Pa. <i>215 South Center Street.</i>
1897,	Jan.	LANDIS, WILLIAM WEIDMAN, M.A.; Professor of Mathematics, Dickinson College, Carlisle, Pa.
1898,	Apr.	LANZA, GAETANO, B.Sc., C. and M.E.; Professor of Theoretical and Applied Mechanics, in charge of the Department of Mechanical Engineering, Massachusetts Institute of Technology, Boston, Mass.
1897,	May	LAVES, KURT, M.A., Ph.D. (Berlin); Member of the Astronomische Gesellschaft; Assistant Professor of Astronomy, University of Chicago, Chicago, Ill.
1889,	Dec.	LEGRAS, GUSTAVE, M.Sc.; Assistant Professor of Mathematics, College of the City of New York. <i>17 Lexington Avenue</i> , New York, N. Y.
1900,	Oct.	LEHMER, DERRICK NORMAN, M.A., Ph.D. (Chicago); Instructor in Mathematics, University of California, Berkeley, Cal. <i>2924 Shattuck Avenue.</i>
1892,	Feb.	LEUSCHNER, ARMIN OTTO, B.A., Ph.D. (Berlin), Sc.D.; Member of the Astronomische Gesellschaft; F.R.A.S.; Associate Professor of Astronomy and Geodesy, and Director of the Students' Observatory, University of California, Berkeley, Cal. <i>2011 Bancroft Way.</i>
1891,	May	LEWIS, CHARLTON THOMAS, Ph.D. (New York University); Member of the Actuarial Society of America. <i>34 Nassau Street</i> , New York, N. Y.

Date of Admission.		
1894, June		LING, GEORGE HERBERT, Ph.D. (Columbia); Tutor in Mathematics, Columbia University, New York, N. Y. <i>242 West 135th Street.</i>
1900, Dec.		LITTLE, CHARLES NEWTON, B.A., Ph.D. (Yale); Professor of Civil Engineering, University of Idaho, Moscow, Id.
1900, June		LOCKE, LESLIE LELAND, M.A., <i>312 Greene Avenue, Brooklyn, N. Y.</i>
1891, June		LOUD, FRANK HERBERT, M.A., Ph.D. (Haverford); Professor of Mathematics, Colorado College, Colorado Springs, Col. <i>703 South 10th Street.</i>
1901, Feb.		LOVE, AUGUSTUS EDWARD HOUGH, M.A., D.Sc. (Oxford); F.R.S.; Honorary Secretary of the London Mathematical Society; Sedleian Professor of Natural Philosophy, Oxford University, Oxford, England. <i>34 St. Margaret's Road.</i>
1891, Apr.		LOVE, JAMES LEE, M.A.; Assistant Professor of Mathematics; Secretary of the Lawrence Scientific School, Harvard University, Cambridge, Mass. <i>16 University Hall.</i>
1894, Oct.		LOVETT, EDGAR ODELL, M.A., Ph.D. (Virginia, Leipsic); Member of the London Mathematical Society; Member of the Société Mathématique de France; Member of the Circolo Matematico di Palermo; Member of the Deutsche Mathematiker-Vereinigung; Professor of Mathematics, Princeton University, Princeton, N. J.
1896, Nov.		*LUDLOW, HENRY HUNT, Graduate of the U. S. Military Academy; Captain, 6th U. S. Artillery. <i>Fort Baker, Sansalito, Col.</i>
1894, Oct.		LYMAN, ELMER A., B.A., Professor of Mathematics and Principal of the Michigan State Normal College, Ypsilanti, Mich. <i>126 North Washington Street.</i>
1889, Dec.		*MCCLINTOCK, EMORY, M.A., Ph.D., LL.D.; EX-PRESIDENT; F.I.A.; Member of the Actuarial Society of America; Member of the London Mathematical Society; Actuary of the Mutual Life Insurance Company of New York. <i>32 Nassau Street, New York, N. Y.</i>
1902, Apr.		McDONALD, JOHN HECTOR, B.A., Ph.D. (Chicago); Instructor in Mathematics, University of California, Berkeley, Cal. <i>2532 Hillegass Avenue.</i>
1891, May		McDOUGALL, ALEXANDER HIRAM, B.A.; Mathematical Master of the Collegiate Institute, Ottawa, Canada. <i>286 Kent Street.</i>

Date of Admission.		
1897,	Dec.	McKAY, ALEXANDER CHARLES, B.A.; Professor of Mathematics, McMaster University, Toronto, Can.
1895,	Nov.	MCKINNEY, THOMAS EMERY, M.A.; Professor of Mathematics and Astronomy, Marietta College, Marietta, O. 617 Wooster Street.
1897,	Feb.	MACKINNON, ANNIE LOUISE (MRS. EDWARD FITCH), M.Sc., Ph.D. Clinton, N. Y.
1891,	Apr.	McMAHON, JAMES, M.A.; Member of the London Mathematical Society; Assistant Professor of Mathematics, Cornell University, Ithaca, N. Y. 7 Central Avenue.
1891,	Apr.	MCNEILL, MALCOLM, M.A., Ph.D.; Professor of Mathematics and Astronomy, Lake Forest University, Lake Forest, Ill.
1898,	Dec.	*MACAULAY, FRANCIS SOWERBY, M.A., D.Sc. (London); Member of the London Mathematical Society; Associate Editor of the <i>Mathematical Gazette</i> ; Mathematical Master, St. Paul's School, West Kensington, London, W., England.
1891,	May	MACFARLANE, ALEXANDER, M.A., D.Sc. (Edinburgh), LL.D.; Member of the Circolo Matematico di Palermo; Lecturer on Mathematical Physics, Lehigh University, South Bethlehem, Pa. Gowrie Grove, Chatham, Ontario, Canada.
1897,	Dec.	MACKAY, JOHN STURGEON, M.A., LL.D.; Fellow of the Royal Society of Edinburgh; Honorary Member of the Edinburgh Mathematical Society; Member of the Deutsche Mathematiker-Vereinigung; Master in the Edinburgh Academy. 69 Northumberland Street, Edinburgh, Scotland.
1888,	Nov.	MACLAY, JAMES, C.E., Ph.D. (Columbia); Adjunct Professor of Mathematics, Columbia University, New York, N. Y.
1897,	Jan.	MADDISON, ISABEL, B.Sc., Ph.D. (Bryn Mawr); Member of the London Mathematical Society; Secretary to the President and Reader in Mathematics, Bryn Mawr College, Bryn Mawr, Pa.
1897,	Aug.	MALTBIE, WILLIAM HENRY, M.A., Ph.D. (Johns Hopkins); Professor of Mathematics, The Woman's College, Baltimore, Md.
1900,	June	MANCHESTER, JAMES EUGENE, B.Sc., D.Sc. (Tübingen); President of Vincennes University, Vincennes, Ind.
1891,	Nov.	MANN, CHARLES RIBORG, M.A., Ph.D. (Berlin); Instructor in Physics, University of Chicago, Chicago, Ill.

Date of Admission.	
1891, Nov.	MANNING, HENRY PARKER, B.A., Ph.D. (Johns Hopkins); Assistant Professor of Pure Mathematics, Brown University, Providence, R. I.
1891, June	MARKLEY, JOSEPH LYBRAND, M. A., Ph. D. (Harvard); Assistant Professor of Mathematics, University of Michigan, Ann Arbor, Mich. <i>1320 South University Avenue.</i>
1891, Apr.	MARTIN, ARTEMAS, M.A., Ph.D., LL.D; Member of the London Mathematical Society; Member of the Société Mathématique de France; Member of the Circolo Matematico di Palermo; Member of the Deutsche Mathematiker-Vereinigung; Member of the Edinburgh Mathematical Society; U. S. Coast and Geodetic Survey Office, Washington, D. C. <i>915 N Street, N. W.</i>
1899, Dec.	MARTIN, EMILIE NORTON, Ph.D. (Bryn Mawr). Mon-treat, Buncombe Co., N. C.
1893, Feb.	MASCHKE, HEINRICH, Ph.D. (Göttingen); Associate Professor of Mathematics, University of Chicago, Chicago, Ill. <i>5721 Monroe Avenue.</i>
1890, May	MASON, JAMES WEIR, M.A.; Member of the Actuarial Society of America; Professor of Pure Mathematics, College of the City of New York, New York, N. Y.
1892, Mar.	MENDÍZÁBAL-TAMBORREL JOAQUIN DE, M.A., D.Sc., Geographical and Military Engineer; Member of the London Mathematical Society; Member of the Société Mathématique de France; F.R.A.S.; Member of the Astronomische Gesellschaft; Captain of Engineer Corps. <i>Sociedad "Alzate," Palma No. 13, Mexico, D. F., Mexico.</i>
1891, Apr.	MERRIMAN, MANSFIELD, C.E., Ph.D.; Professor of Civil Engineering, Lehigh University, South Bethlehem, Pa.
1889, June	MESSENGER, HIRAM JOHN, Lit.B., Ph.D.; Member of the Actuarial Society of America; Actuary of the Travelers Insurance Company, Hartford, Conn.
1891, Oct.	*METZLER, WILLIAM H., B.A., Ph.D. (Clark); Fellow of the Royal Society of Edinburgh; Corresponding Fellow of the Royal Society of Canada; Member of the London Mathematical Society; Member of the Deutsche Mathematiker-Vereinigung; Francis H. Root Professor of Mathematics, Syracuse University, Syracuse, N. Y.
1891, June	MILLER, BLOOMFIELD JACKSON; Member of the Actuarial Society of America; Mathematician of the Mutual Benefit Life Insurance Company. <i>752 Broad Street, Newark, N. J.</i>

Date of Admission.		
1891,	May	MILLER, EPHRAIM, M.A., Ph.D.; Professor of Mathematics and Astronomy, and Dean of the School of Arts, University of Kansas, Lawrence, Kan. <i>1244 Tennessee Street.</i>
1898,	Apr.	*MILLER, GEORGE A., Ph.D.; Member of the London Mathematical Society; Member of the Société Mathématique de France; Member of the Deutsche Mathematiker-Vereinigung; Assistant Professor of Mathematics, Stanford University, Cal. <i>P. O. Box 783.</i>
1899,	Oct.	MILLER, JOHN ANTHONY, M.A., Ph.D. (Chicago); Professor of Mechanics and Astronomy, University of Indiana, Bloomington, Ind. <i>Escondite.</i>
1900,	Dec.	MILNE, EDWARD LAWRENCE, M.Sc.; Instructor in Mathematics, University of Illinois, Champaign, Ill. <i>307 West Hill Street.</i>
1900,	Dec.	MITCHELL, HENRY BEDINGER, E.E., M.A.; Tutor in Mathematics, Columbia University, New York, N. Y. <i>Linden Hill, Flushing, New York, N. Y.</i>
1891,	May	MOODY, WILLIAM ALBION, M.A.; Professor of Mathematics, Bowdoin College, Brunswick, Me. <i>60 Federal Street.</i>
1891,	May	MOORE, ELIAKIM HASTINGS, B.A., Ph.D. (Yale, Göttingen, honorary); EX-PRESIDENT; Member of the National Academy of Sciences; Member of the Circolo Matematico di Palermo; Member of the London Mathematical Society; Member of the Deutsche Mathematiker-Vereinigung; Editor of the <i>Transactions of the American Mathematical Society</i> ; Professor and Head of the Department of Mathematics, University of Chicago, Chicago, Ill. <i>5617 Washington Avenue.</i>
1902,	Apr.	MORENO, HALCOTT C., M.A., Ph.D. (Clark); Instructor in Applied Mathematics, Stanford University, Palo Alto, Cal. <i>P. O. Box 92.</i>
1891,	May	MORLEY, FRANK, M.A., Sc.D. (Cambridge); Member of the London Mathematical Society; Editor of the <i>Bulletin of the American Mathematical Society</i> ; Editor of the <i>American Journal of Mathematics</i> ; Professor of Mathematics, Johns Hopkins University, Baltimore, Md.
1900,	Feb.	MOULTON, FOREST RAY, B.A., Ph.D. (Chicago); F.R.A.S.; Associate Editor of the <i>Journal of Geography</i> ; Instructor in Astronomy, University of Chicago, Chicago, Ill.

Date of Admission.		
1900,	Dec.	*MUKHOPĀDHYĀY, ASUTOSH, M.A., LL.D.; Member of the Société Mathématique de France; Member of the Edinburgh Mathematical Society; Member of the Circolo Matematico di Palermo; F.R.A.S.; Examiner in Mathematics and Member of the Syndicate, University of Calcutta, Calcutta, India; Professor of Mathematics at the Indian Association for the Cultivation of Science. <i>77 Russa Road North, Bhowanipore, Calcutta.</i>
1898,	Oct.	MULLEN, LORING BLANCHARD, Ph.D.; Instructor in Mathematics, Morris High School, New York, N. Y.
1890,	Dec.	MURRAY, DANIEL ALEXANDER, B.A., Ph.D. (Johns Hopkins); Professor of Mathematics, Dalhousie College, Halifax, N. S.
1891,	June	NELSON, ALFRED BRIERLEY, M.A., M.D.; Professor of Mathematics, Centre College, Danville, Ky. <i>443 Lexington Street.</i>
1895,	Dec.	NEUFELD, JULIUS L., E.E.; Assistant Professor of Mathematics, Central High School, Philadelphia, Pa. <i>1905 Venango Street.</i>
1891,	Nov.	NEWCOMB, SIMON, D.Sc., Ph.D., LL.D., D.C.L.; Ex-PRESIDENT; Member of the National Academy of Sciences; Foreign Member of the Royal Society of London; Foreign Associate of the Institute of France; Foreign Associate of the Royal Astronomical Society; President of the Astronomical and Astrophysical Society; Co-editor of the <i>American Journal of Mathematics</i> ; Associate Editor of <i>Science</i> ; Emeritus Professor of Mathematics and Astronomy, Johns Hopkins University; Professor of Mathematics, U. S. Navy, retired. <i>1620 P Street, Washington, D. C.</i>
1891,	Oct.	NEWSON, HENRY BYRON, M.A., Ph.D.; Member of the Circolo Matematico di Palermo; Member of the Deutsche Mathematiker-Vereinigung; Editor of the <i>Kansas University Science Bulletin</i> ; Associate Professor of Mathematics, University of Kansas, Lawrence, Kan.
1897,	Jan.	NEWSON, MARY WINSTON, B.A., Ph.D. (Göttingen). <i>1702 Massachusetts Street, Lawrence, Kan.</i>
1899,	Aug.	NICHOLS, THOMAS FLINT, B.A., Ph.D. (Clark); Assistant Professor of Mathematics, Hamilton College, Clinton, N. Y.

Date of Admission.		
1900,	Dec.	NICHOLS, WALTER SMITH, M.A.; Member of the Actuarial Society of America; Editor of the <i>Insurance Monitor</i> and <i>Insurance Law Journal</i> . 100 William Street, New York, N. Y.
1891,	June	NICHOLSON, JAMES WILLIAM, M.A., LL.D.; Professor of Mathematics, Louisiana State University and Agricultural and Mechanical College, Baton Rouge, La. 901 Convention Street.
1890,	Dec.	NOBLE, CHARLES ALBERT, B.Sc., Ph.D. (Göttingen); Instructor in Mathematics, University of California, Berkeley, Cal. 2727 Bancroft Way.
1891,	Dec.	OLDS, GEORGE DANIEL, M.A.; Professor of Mathematics, Amherst College, Amherst, Mass.
1902,	Oct.	OSBORNE, WINFRED HORTON, B.A.; Purdue University, Lafayette, Indiana.
1891,	Apr.	OSBORNE, GEORGE ABBOTT, B.Sc.; Professor of Mathematics, Massachusetts Institute of Technology, Boston, Mass.
1895,	Feb.	OSGOOD, WILLIAM FOGG, M.A., Ph.D. (Erlangen); Member of the Deutsche Mathematiker-Vereinigung; Assistant Professor of Mathematics, Harvard University, Cambridge, Mass. 60 Walker Street.
1894,	Oct.	OSTERBERG, MAX, E.E., M.A. 11 Broadway, New York, N. Y.
1900,	Dec.	PAGE, JAMES MORRIS, M.A., Ph.D. (Leipsic); Professor of Mathematics, University of Virginia, Charlottesville, Va.
1897,	May	PALMIÉ, ANNA HELENE, B.Ph.; Professor of Mathematics, College for Women, Western Reserve University, Cleveland, O. 2733 Euclid Avenue.
1894,	Mar.	PARTRIDGE, EDWARD ANSON, B.Sc., M.A., Ph.D.; Professor of Physics, Central Manual Training School, Philadelphia, Pa. 17th and Wood Streets.
1896,	Dec.	PATTERSON, JAMES LAWSON, B.Ph., D.Sc. (Princeton); Head Master of Chestnut Hill Academy, Chestnut Hill, Philadelphia, Pa.
1891,	May	PEIRCE, BENJAMIN OSGOOD, Ph.D. (Leipsic); Hollis Professor of Mathematics and Natural Philosophy, Harvard University, Cambridge, Mass. The Jefferson Physical Laboratory.
1898,	Oct.	PEIRCE, JAMES MILLS, M.A.; Perkins Professor of Astronomy and Mathematics, Harvard University, Cambridge, Mass. 4 Kirkland Place.

Date of
Admission.

1898,	Oct.	PELL, ALEXANDER, Ph.D. (Johns Hopkins); Professor of Mathematics, University of South Dakota, Vermillion, S. Dak.
1893,	Oct.	PETTEGREW, DAVID LYMAN, General Special Agent of the Massachusetts Mutual Life Insurance Company, Springfield, Mass. <i>P. O. Box 75, Worcester, Mass.</i>
1892,	Oct.	PFISTER, JOSEPH CLEMENT, M.A.; Instructor in Mechanics, Columbia University, New York, N. Y.
1896,	Nov.	PHILLIPS, ANDREW WHEELER, M.A., Ph.D. (Yale); Professor of Mathematics and Dean of the Graduate School, Yale University, New Haven, Conn. <i>209 York Street.</i>
1894,	Oct.	PIERPONT, JAMES, Ph.D. (Vienna); Professor of Mathematics, Yale University, New Haven, Conn. <i>42 Mansfield Street.</i>
1889,	Dec.	PIERSON, ISRAEL CORIELL, M.A., Ph.D.; Member of the Actuarial Society of America; Actuary of the Washington Life Insurance Company of New York. <i>141 Broadway, New York, N. Y.</i>
1892,	Nov.	PLUMLEY, GARDNER LADD, Member of the Actuarial Society of America; Assistant Actuary of the Home Life Insurance Company. <i>256 Broadway, New York, N. Y.</i>
1890,	Dec.	POOR, CHARLES LANE, Ph.D. (Johns Hopkins); Member of the Astronomische Gesellschaft; F.R.A.S.; Editor of the <i>Annals of the New York Academy of Sciences.</i> <i>22 Thomas Street, New York, N. Y.</i>
1897,	Feb.	PORTER, MILTON BROCKETT, B.Sc., M.A., Ph.D. (Harvard); Associate Editor of the <i>Transactions of the American Mathematical Society</i> ; Assistant Professor of Mathematics, Yale University, New Haven, Conn. <i>77 Whitney Avenue.</i>
1892,	May	PRENTISS, ROBERT WOODWORTH, M.Sc.; Professor of Mathematics and Astronomy, Rutgers College, New Brunswick, N. J. <i>122 Bayard Street.</i>
1889,	Dec.	PUPIN, MICHAEL IDVORSKY, B.A., Ph.D. (Berlin); Professor of Electro-Mechanics, Columbia University, New York, N. Y.
1891,	June	PURYEAR, CHARLES, B.Sc., M.A., C.E.; Professor of Mathematics, Agricultural and Mechanical College of Texas, College Station, Texas.
1902,	Apr.	PUTNAM, THOMAS MILTON, M.Sc., Ph.D. (Chicago); Instructor in Mathematics, University of California, Berkeley, Cal.

Date of Admission.		
1901,	Oct.	RABINOVITCH, I. EUCLID, Ph.D. (Johns Hopkins). <i>130 Henry Street</i> , New York, N. Y.
1900,	Feb.	RAEDELINGER, FRANK GUSTAVE, B.Sc., LL.B.; Attorney at Law and Patents. <i>1431 Chapin Street</i> , Washington, D. C.
1894,	Mar.	RAND, JOHN HOLMES, M.A.; Professor of Mathematics, Bates College, Lewiston, Me. <i>28 Frye Street</i> .
1891,	Dec.	RAYSON, AMY, B.A.; Joint Principal of School for Girls, New York, N. Y. <i>176 West 75th Street</i> .
1901,	Aug.	REAVES, SAMUEL WATSON, B.Sc., B.A.; Assistant Professor of Mathematics, Clemson College, S. C.
1888,	Nov.	REES, JOHN KROM, M.A., E.M., Ph.D.; Member of the Astronomische Gesellschaft; F.R.A.S.; Professor of Astronomy and Director of the Observatory, Columbia University, New York, N. Y.
1900,	Apr.	REID, LEGH WILBER, B.A., M.Sc., Ph.D. (Göttingen); Associate Professor of Mathematics, Haverford College, Haverford, Pa.
1893,	Apr.	RICE, CHARLES MOEN, B.A. Worcester, Mass. <i>P. O. Box 215</i> .
1899,	Aug.	*RICHMOND, HERBERT WILLIAM, M.A.; Fellow of the Cambridge Philosophical Society; Member of the London Mathematical Society; Fellow and Lecturer of King's College, and University Lecturer, Cambridge University, Cambridge, England.
1902,	Oct.	RIETZ, HENRY LEWIS, B.Sc., Ph.D. (Cornell); Professor of Mathematics and Astronomy, Butler College, Indianapolis, Ind.
1891,	Oct.	ROCKWELL, CHARLES HALL. Tarrytown, N. Y.
1891,	May	ROCKWOOD, CHARLES GREENE, JR., M.A., Ph.D. (Yale); Professor of Mathematics, Princeton University, Princeton, N. J. <i>34 Bayard Lane</i> .
1896,	Apr.	ROE, EDWARD DRAKE, JR., M.A., Ph.D. (Erlangen); Member of the Deutsche Mathematiker-Vereinigung; John Raymond French Professor of Mathematics, Syracuse University, Syracuse, N. Y. <i>105 Ostrander Street</i> .
1902,	Apr.	ROEVER, WILLIAM HENRY, B.Sc.; <i>3628 St. Louis Avenue</i> , St. Louis, Mo.
1897,	Feb.	ROTHROCK, DAVID ANDREW, M.A., Ph.D. (Leipsic); Member of the Deutsche Mathematiker-Vereinigung; Associate Professor of Mathematics, University of Indiana, Bloomington, Ind.

Date of Admission.		
1898,	Aug.	SAFFORD, FREDERICK HOLLISTER, M.A., Ph.D. (Harvard); Instructor in Mathematics, University of Pennsylvania, Philadelphia, Pa. <i>College Hall.</i>
1897,	Dec.	SAUREL, PAUL LOUIS, B.Sc., D.Sc. (Bordeaux); Instructor in Mathematics, College of the City of New York. <i>17 Lexington Avenue</i> , New York, N. Y.
1891,	Nov.	SAYRE, HERBERT ARMISTEAD, B.E., Ph.D. (Johns Hopkins); Professor of Physics, University of Alabama, University, Ala.
1894,	Mar.	SCHLEGEL, VICTOR, Ph.D. (Leipsic); Member of the Société Mathématique de France; Member of the Circolo Matematico di Palermo; Professor of Mathematics, Königliche Höhere Maschinenbauschule, Hagen, Germany. <i>Volmestrasse, 62.</i>
1892,	Feb.	*SCHMIEDEL, OSCAR, B.Sc., M.A.; Bethany, W. Va.
1895,	Mar.	SCHMITT, COOPER DAVIS, M.A.; Professor of Mathematics, University of Tennessee, Knoxville, Tenn.
1900,	Oct.	SCHOTTENFELS, IDA MAY, Ph.M.; <i>1230 Amsterdam Avenue</i> , New York, N. Y.
1892,	Apr.	SCHULTZE, ARTHUR, Ph.D.; Boys' High School, New York, N. Y.
1893,	Oct.	SCHWATT, ISAAC J., Ph.D.; Assistant Professor of Mathematics, University of Pennsylvania, Philadelphia, Pa.
1891,	May	SCOTT, CHARLOTTE ANGAS, D.Sc. (London); Member of the London Mathematical Society; Member of the Edinburgh Mathematical Society; Member of the Deutsche Mathematiker-Vereinigung; Member of the Circolo Matematico di Palermo; Honorary Member of the Amsterdam Mathematical Society; Co-Editor of the <i>American Journal of Mathematics</i> ; Professor of Mathematics, Bryn Mawr College, Bryn Mawr, Pa.
1902,	Oct.	SCOTT, GEORGE HARVEY, M.A.; Professor of Mathematics and Astronomy, Yankton College, Yankton, S. Dak.
1889,	June	SEARLE, REV. GEORGE MARY, M.A., Ph.D. Catholic University, Washington, D. C.
1895,	Aug.	SEE, THOMAS JEFFERSON JACKSON, M.A., Ph.D. (Berlin); Member of the Astronomische Gesellschaft; F.R.A.S.; Member of the Société Mathématique de France; Member of the Deutsche Mathematiker-Vereinigung; Professor of Mathematics, U. S. Navy, Washington, D. C. <i>Naval Observatory.</i>

Date of Admission.		
1902,	Feb.	DE SEQUIER, JEAN ARMAND MARIE JOSEPH, D.Sc.; Member of the Société Mathématique de France. <i>56 Rue des Saints Pères</i> , Paris, France.
1899,	Aug.	SELLEW, GEORGE TUCKER, M.A., Ph.D.; Professor of Mathematics, Knox College, Galesburg, Ill.
1892,	June	SHACK, FERDINAND, B.Sc., M.A., LL.B. <i>56 Wall Street</i> , New York, N. Y.
1891,	Apr.	SHATTUCK, SAMUEL WALKER, B.Sc., M.A., C.E.; Professor of Mathematics, University of Illinois, Champaign, Ill.
1894,	Mar.	SHAW, JAMES BYRNIE, M.Sc., D. Sc.; Professor of Mathematics, Kenyon College, Gambier, Ohio.
1899,	Oct.	SINGER, SIMON AUGUSTUS, B.A.; Professor of Mathematics. Capital University, Columbus, Ohio.
1899,	Aug.	SKINNER, ERNEST BROWN, B.A., Ph.D. (Chicago); Assistant Professor of Mathematics, University of Wisconsin, Madison, Wisconsin. <i>414 Charter Street</i> .
1899,	Oct.	SLAUGHT, HERBERT ELLSWORTH, M.A., Ph.D. (Chicago); Assistant Professor of Mathematics, University of Chicago, Chicago, Ill. <i>5535 Madison Avenue</i> .
1901,	Apr.	SLOCUM, STEPHEN ELMER, B.E., Ph.D. (Clark); Instructor in Applied Mathematics, University of Cincinnati, Cincinnati, Ohio.
1900,	Oct.	SMITH, BURKE, B.Sc.; Instructor in Mathematics, Sheffield Scientific School, Yale University, New Haven, Conn. <i>1136 Chapel Street</i> .
1893,	Oct.	SMITH, DAVID EUGENE, Ph.M., Ph.D.; Member of the Deutsche Mathematiker-Vereinigung; Editor of the <i>Bulletin of the American Mathematical Society</i> ; Professor of Mathematics, Teachers College, Columbia University, New York, N. Y.
1898,	Apr.	SMITH, EUGENE RANDOLPH, M.A.; Instructor in Mathematics, Montclair High School, Montclair, N. J. <i>75 Valley Road</i> .
1891,	May	SMITH, OTIS DAVID, M.A., LL.D.; Professor of Mathematics, Alabama Polytechnic Institute, Auburn, Ala.
1891,	Nov.	SMITH, PERCEY FRANKLYN, Ph.D.; Professor of Mathematics, Sheffield Scientific School, Yale University, New Haven, Conn. <i>78 Pearl Street</i> .
1891,	Apr.	SMITH, WILLIAM BENJAMIN, M.A., Ph.D. (Göttingen); Professor of Mathematics, Tulane University, New Orleans, La.

Date of Admission.		
1889,	Dec.	SNOOK, THOMAS EDWARD, E.M.; Architect and Engineer. <i>261 Broadway</i> , New York, N. Y.
1895,	Apr.	SNYDER, MONBOE BENJAMIN, M.A.; Member of the Astronomische Gesellschaft; F.R.A.S.; Professor of Astronomy and Applied Mathematics and Head of the Department of Mathematics, Central High School, Philadelphia, Pa.; Director of the Philadelphia Observatory. <i>2402 North Broad Street</i> .
1896,	Nov.	SNYDER, VIRGIL, M.A., Ph.D. (Göttingen); Instructor in Mathematics, Cornell University, Ithaca, N. Y. <i>204 University Avenue</i> .
1892,	May	SQUIER, GEORGE OWEN, Ph.D. (Johns Hopkins); Lieutenant-Colonel, U. S. A. Signal Corps; First Lieutenant, 3d Artillery, U. S. A. <i>Army and Navy Club</i> , Washington, D. C.
1888,	Nov.	STABLER, EDWARD LINCOLN, M.A., Ph.D. (Columbia); U. S. Leather Co., <i>26 Ferry Street</i> , Brooklyn, N. Y.
1894,	Nov.	STECKER, EDWARD FREEMAN, M.Sc., Ph.D.; Instructor in Mathematics, Cornell University, Ithaca, N. Y. <i>113 Stewart Avenue</i> .
1891,	Jan.	STEINMETZ, CHARLES PROTEUS, Electrician, General Electric Company, Schenectady, N. Y.
1891,	June	ST. JOHN, HOWELL WILLIAMS, Ph.B.; Member of the Actuarial Society of America; Corresponding Member of the Institut des Actuaires Français; Actuary of the Aetna Life Insurance Company, Hartford, Conn. <i>P. O. Box 913</i> .
1891,	May	STONE, ORMOND, M.A.; Editor of the <i>Annals of Mathematics</i> ; Director of the Leander McCormick Observatory and Professor of Practical Astronomy, University of Virginia, Charlottesville, Va.
1897,	Feb.	STORY, WILLIAM EDWARD, B.A., Ph.D. (Leipsic); Member of the London Mathematical Society; Professor of Mathematics, Clark University, Worcester, Mass.
1902,	Apr.	STRINGHAM, IRVING, B.A., Ph.D. (Johns Hopkins); Professor of Mathematics, University of California, Berkeley, Cal. <i>The Owl's Nest, Prospect Avenue</i> .
1895,	Dec.	STRONG, WENDELL MELVILLE, M.A., Ph.D. (Yale); Member of the Actuarial Society of America. Mutual Life Insurance Company of New York. <i>32 Nassau Street</i> .
1891,	May	*TABER, HENRY, B.Ph., Ph.D. (Johns Hopkins); Member of the London Mathematical Society; Assistant Professor of Mathematics, Clark University, Worcester, Mass.

Date of Admission.		
1900,	Dec.	TALIAFERRO, THOMAS HARDY, C.E., Ph.D. (Johns Hopkins). <i>1208 Madison Avenue</i> , Baltimore, Md.
1901,	Oct.	TALLMAN, WILLIAM DUANE, B.Sc.; Professor of Mathematics, Montana State College of Agriculture and Mechanic Arts, Bozeman, Montana. <i>736 Third Avenue South</i> .
1896,	Nov.	*TANNER, JOHN HENRY, B.Sc., Ph.D.; Assistant Professor of Mathematics, Cornell University, Ithaca, N. Y. <i>Cornell Heights</i> .
1889,	Dec.	TATLOCK, JOHN, JR., M.A.; F.R.A.S.; Associate Actuary of the Mutual Life Insurance Company of New York, New York, N. Y. <i>32 Nassau Street</i> .
1891,	Apr.	TAYLOR, JAMES MORFORD, M.A., LL.D.; Professor of Mathematics, Colgate University, Hamilton, N. Y.
1899,	Oct.	THOMPSON, EDWARD PAYSON, M.A.; Professor of Mathematics and Astronomy, Miami University, Oxford, Ohio.
1891,	Apr.	*THOMPSON, HENRY DALLAS, M.A., D.Sc., Ph.D.; Professor of Mathematics, Princeton University, Princeton, N. J. <i>Morven Street</i> .
1897,	Jan.	*THOMPSON, HENRY DALLAS, M.A., D.Sc., Ph.D.; Professor of Mathematics and Astronomy, Lehigh University, South Bethlehem, Pa. <i>308 Packer Avenue</i> .
1901,	Oct.	TORY, HENRY M., M.A.; Mathematical Lecturer, McGill University, Montreal, Canada.
1902,	Apr.	TOWNLEY, SIDNEY DEAN, M.Sc., Sc.D. (Michigan); Instructor in Practical Astronomy, University of California, Berkeley, Cal. <i>2023 Bancroft Way</i> .
1895,	Nov.	TOWNSEND, EDGAR JEROME, Ph.D. (Göttingen); Associate Professor of Mathematics, University of Illinois, Champaign, Ill. <i>402 West Clark Street</i> .
1893,	Nov.	TURRELL, ISAAC HODGES, Cincinnati, O. <i>1503 Chase Avenue, North Side</i> .
1894,	Aug.	TYLER, HARRY WALTER, B.Sc., Ph.D. (Erlangen); Professor of Mathematics and Secretary of the Faculty, Massachusetts Institute of Technology, Boston, Mass.
1897,	Dec.	UNDERHILL, MARY, M.Sc. <i>227 East 18th Street</i> , New York, N. Y.
1888,	Nov.	VAN AMRINGE, J. HOWARD, M.A., Ph.D. L.H.D., LL.D.; EX-PRESIDENT; Professor of Mathematics and Dean of Columbia College, Columbia University, New York, N. Y. <i>56 West 51st Street</i> .

Date of Admission.		
1902, Feb.		VAN DER HEYDEN, ALEXANDER FREDERICK, M.A.; Fellow of the University of Durham; Member of the Mathematical Association; Mathematical Master, Middlesbrough High School, Middlesbrough, England. <i>3 St. John's Terrace.</i>
1902, Oct.		VAN DER VRIES, JOHN N., M.A., Ph.D. (Clark); Associate Professor of Mathematics, University of Kansas, Lawrence, Kansas. <i>1136 Tennessee Street.</i>
1891, June		VAN VELZER, CHARLES AMBROSE, B.Sc., Ph.D.; Member of the London Mathematical Society; Professor of Mathematics, University of Wisconsin, Madison, Wis. <i>134 West Gorham Street.</i>
1893, Apr.		VAN VLECK, EDWARD BURR, M.A., Ph.D. (Göttingen); Member of the Deutsche Mathematiker-Vereinigung; Associate Editor of the <i>Transactions of the American Mathematical Society</i> ; Professor of Mathematics, Wesleyan University, Middletown, Conn.
1891, Apr.		VAN VLECK, JOHN MONROE, M.A., LL.D.; Member of the Astronomische Gesellschaft; Professor of Mathematics and Astronomy, Wesleyan University, Middletown, Conn.
1900, June		VAUGHN, WILLIAM JAMES, M.A., LL.D.; Professor of Mathematics and Astronomy, Vanderbilt University, Nashville, Tenn.
1900, Dec.		VIVIAN ROXANA HAYWARD, B.A., Ph.D. (Pennsylvania); Instructor in Mathematics, Wellesley College, Wellesley, Mass. <i>106 Gordon Avenue, Hyde Park, Mass.</i>
1891, Oct.		WAIT, LUCIEN AUGUSTUS, B.A.; Professor of Mathematics, Cornell University, Ithaca, N. Y. <i>35 East Avenue.</i>
1891, Apr.		WALDO, CLARENCE ABIATHAR, M.A., Ph.D.; Head Professor of Mathematics, Purdue University, Lafayette, Ind. <i>113 South Ninth Street.</i>
1898, Dec.		WALKER, BUZZ M., M.Sc.; Professor of Mathematics, Mississippi Agricultural and Mechanical College, Agricultural College, Miss.
1894, Feb.		WALKER, LON CAIN, M.A. Stanford University, Palo Alto, Cal.
1898, Apr.		WASIBURNE, ALVA COURtenay, Member of the Actuarial Society of America; Actuarial Division, Metropolitan Life Insurance Company. <i>1 Madison Avenue, New York, N. Y.</i>

Date of Admission.		
1902,	Apr.	WEBB, HARRY EMMETT, B.A.; Instructor in Mathematics and Science, Stevens School, Hoboken, N. J. <i>Burling Terrace</i> , Summit, N. J.
1891,	Oct.	WEBB, JOHN BURKITT, C.E.; Professor of Mathematics and Mechanics, Stevens Institute of Technology, Hoboken, N. J.
1891,	May	WEBSTER, ARTHUR GORDON, B.A., Ph.D. (Berlin); Professor of Physics, Clark University, Worcester, Mass.
1891,	June	WEEKS, RUFUS WELLS, Member of the Actuarial Society of America; Actuary of the New York Life Insurance Company. <i>346 Broadway</i> , New York, N. Y.
1892,	Feb.	WELD, LAENAS GIFFORD, B.Sc., M.A.; Professor of Mathematics and Astronomy and Dean of the Graduate College, <i>State University</i> of Iowa, Iowa City, Ia.
1891,	Apr.	WELLS, WEBSTER, B.Sc.; Professor of Mathematics, <i>Massachusetts Institute of Technology</i> , Boston, Mass.
1891,	May	WENTWORTH, GEORGE ALBERT, M.A. <i>Exeter</i> , N. H.
1896,	Sept.	WENTZ, ESTELLA KATE, M.Sc.; Instructor in Mathematics, <i>Manual Training High School</i> , Indianapolis, Ind.
1897,	Feb.	WERNICKE, AUGUST LUDWIG PAUL; Professor of Modern Languages, <i>State College of Kentucky</i> , Lexington, Ky. <i>411 South Limestone Street</i> .
1897,	Dec.	*WESTERN ALFRED EDWARD, M.A.; Member of the London Mathematical Society; Fellow of the Cambridge Philosophical Society. <i>36 Lancaster Gate</i> , London, W. England.
1902,	Dec.	WESTFALL, W. D. A., B.A.; Instructor in Mathematics, <i>Yale University</i> , New Haven, Conn. <i>43 Hotchkiss Street</i> .
1898,	Aug.	WESTLUND, JACOB, Ph.D. (Yale); Member of the Deutsche Mathematiker-Vereinigung; Associate Professor of Mathematics, <i>Purdue University</i> , Lafayette, Ind. <i>222 Main Street, West Lafayette</i> .
1892,	Nov.	WHITE, HENRY SEELEY, B.A., Ph.D. (Göttingen); Associate Editor of the <i>Transactions of the American Mathematical Society</i> ; Editor of the <i>Annals of Mathematics</i> ; Noyes Professor of Pure Mathematics, <i>Northwestern University</i> , Evanston, Ill. <i>619 University Place</i> .
1902,	Dec.	WHITE, WILLIAM FRANK, M.A., B.D.; Head of the Department of Mathematics, <i>State Normal School</i> , New Paltz, N. Y.

Date of Admission.		
1902,	Apr.	WHITNEY, ALBERT WUBTS, B.A.; Instructor in Mathematics, University of California, Berkeley, Cal. <i>2630 Haste Street.</i>
1897,	Dec.	*WHITTAKER, EDMUND TAYLOR, M.A.; Member of the London Mathematical Society; Secretary of the Royal Astronomical Society; Fellow and Lecturer of Trinity College, Cambridge, England.
1897,	Feb.	WHITTEMORE, JAMES KELSEY, M.A.; Instructor in Mathematics, Harvard University, Cambridge, Mass. <i>16 Claverly Hall.</i>
1899,	Feb.	WILCZYNSKI, ERNST JULIUS, Ph.D. (Berlin); Assistant Professor of Mathematics, University of California, Berkeley, Cal. <i>2837 Telegraph Avenue.</i>
1892,	May	WILLARD, JOSEPH MOODY, B.A.; Professor of Mathematics, Pennsylvania State College, State College, Center Co., Pa.
1895,	May	WILLIAMS, CLARK BENEDICT, M.A.; Olney Professor of Mathematics, Kalamazoo College, Kalamazoo, Mich. <i>Ferdinand-Rhode Strasse 24, Leipsic, Germany.</i>
1892,	May	WILLIAMS, ELLA CORNELIA, M.A. <i>133 West 56th Street, New York, N. Y.</i>
1898,	Apr.	WILLIAMS, WILLIAM HILL, M.A.; Chair of Mathematics, Wisconsin State Normal School, Platteville, Wis.
1891,	May	WILLSON, FREDERICK NEWTON, M.A., C.E.; Professor of Descriptive Geometry, Stereotomy, and Technical Drawing, John C. Green School of Science, Princeton University, Princeton, N. J. <i>P. O. Box 63.</i>
1901,	Oct.	WILSON, ALBERT HARRIS, M.S.; Instructor in Mathematics, Princeton University, Princeton, N. J.
1899,	Dec.	WILSON, EDWIN BIDWELL, B.A., Ph.D. (Yale); Instructor in Mathematics, Yale University, New Haven, Conn. <i>Ecole Normale Supérieure, Paris, France.</i>
1900,	Dec.	WILSON, NORMAN RICHARD, M.A.; Lecturer in Mathematics, Wesley College, University of Manitoba, Winnipeg, Canada.
1899,	Dec.	WOOD, RUTH GOULDING, B.Sc., Ph.D. (Yale); Instructor in Mathematics, Smith College, Northampton, Mass. <i>57 Dryads Green.</i>
1895,	Oct.	WOODS, FREDERICK S., B.A., Ph.D. (Göttingen); Editor of the <i>Annals of Mathematics</i> ; Assistant Professor of Mathematics, Massachusetts Institute of Technology, Boston, Mass. <i>21 Church Street, Newton, Mass.</i>

Date of Admission.	
1891, May	WOODWARD, ROBERT SIMPSON, C.E., Ph.D. (Michigan); EX-PRESIDENT; Member of the National Academy of Sciences; Associate Editor of <i>Science</i> ; Professor of Mechanics and Mathematical Physics and Dean of the School of Pure Science, Columbia University, New York, N. Y.
1891, May	WORTHEN, THOMAS WILSON DORE, M.A.; Professor of Mathematics, Dartmouth College, Hanover, N. H.
1898, Oct.	WRIGHT, WALTER CHANNING, Member of the Actuarial Society of America; Consulting Life Insurance Actuary. <i>45 Milk Street, Room 77</i> , Boston, Mass.
1902, Oct.	YANNEY, BENJAMIN FRANKLIN, Professor of Mathematics, Mount Union College, Alliance, Ohio.
1891, May	YOUNG, JACOB WILLIAM ALBERT, M.A., Ph.D. (Clark); Assistant Professor of the Pedagogy of Mathematics, University of Chicago, Chicago, Ill. <i>5430 Washington Avenue</i> .
1902, Feb.	YOUNG, JOHN WESLEY, Ph.B., M.A.; Assistant in Mathematics, Cornell University, Ithaca, N. Y. <i>100 Cook Street</i> .
1902, Oct.	YOUNG, WILLIAM HENRY, M.A.; Member of the London Mathematical Society; Member of the Cambridge Philosophical Society; Member of the Deutsche Mathematiker-Vereinigung; Lecturer in Mathematics, Girton College, Cambridge, England. <i>Peterhouse</i> .
1893, Mar.	YOWELL, EVERETT IRVING, M.Sc., C.E.; Computer at the Naval Observatory, Washington, D. C.
1891, Apr.	ZIWET, ALEXANDER, C.E.; Editor of the <i>Bulletin of the American Mathematical Society</i> ; Junior Professor of Mathematics, University of Michigan, Ann Arbor, Mich. <i>644 South Ingalls Street</i> .

Number of members, January 1, 1903.....	400
Number of members, January 1, 1902.....	375
Members admitted during the year 1902.....	39
Members withdrawing during the year 1901.....	14
Number of life-members.....	23

CONSTITUTION.

ARTICLE I.

This Society shall be called the AMERICAN MATHEMATICAL SOCIETY.

ARTICLE II.

The object of the Society shall be to encourage and maintain an active interest in mathematical science.

ARTICLE III.

The officers of the Society shall be a President, two Vice-Presidents, a Secretary, a Treasurer, a Librarian, and a Committee of Publication to consist of three members who at the same time may hold individually any of the other offices.

ARTICLE IV.

The officers of the Society, the ex-Presidents, and twelve other members of the Society shall constitute a Council, which shall have general charge of the affairs of the Society.

ARTICLE V.

1. The officers of the Society and four other members of the Council shall be elected by ballot at the Annual Meeting of each year. An official ballot shall be sent to each member at least one month prior to the Annual Meeting, and such ballots, if returned to the Secretary in envelopes bearing the names of the voters, shall be counted at the Annual Meeting. Each such ballot shall contain a name proposed by the Council for each vacancy, with blank spaces in which the voter may substitute other names. A majority of all votes cast in person or by mail shall be necessary to election. In case of failure to secure a majority for any office, the members present at the Annual Meeting shall choose by ballot between the two having the highest number of votes. The ex-Presidents of the Society shall be permanent members of the Council; the term of office otherwise shall, beginning with the Annual Meeting in 1900, be two years for the President, one year for other officers, and three years for other members of the Council, and until their successors shall be elected. After the Annual Meeting in 1900, for election as President shall be eligible those members of the Society who have served in the office of Vice-President and who are not holding office as President or Vice-President; and for the election as Vice-President shall be eligible those members of the Society not holding office as President or Vice-President. No elected member of the Council, having completed a term of three years, shall be reelected until at least one year shall have intervened.

2. If the President of the Society die or resign before the expiration of his term of office, the Council may designate one of the Vice-Presidents to serve as Acting President until the next Annual Meeting, when a President shall be elected by the Society. Such vacancies as may exist at any time among the other offices may be filled by the Council. If any elected member of the Council die or resign more than one year before the expiration of his term, the vacancy for the unexpired term shall be filled by the Society at the next Annual Meeting

ARTICLE VI.

This Constitution shall not be amended unless notice of the proposed amendment be sent by mail to every member of the Society at least four weeks in advance of the meeting at which such amendment is to be considered; and such amendment in order to be adopted must receive two-thirds of the votes cast in person and by mail.

BY-LAWS.

I.

The election of new members of the Society shall be by vote of the Council. Applications for admission shall be made by the applicant personally, on blanks provided by the Secretary, and shall be endorsed by two members of the Society. Such applications, being received at any meeting of the Council, shall be laid over for action at any subsequent meeting.

II.

1. Persons elected by the Council, as provided in By-Law I, shall be admitted to membership in the Society upon the payment, within sixty days of the date of their election, of an initiation fee of five dollars.

2. The annual dues shall be five dollars, payable on the 1st of January. Each new member shall pay in proportion to the unexpired fraction of the year, at the time of his election. Should the annual dues of any member remain unpaid beyond a reasonable time, the Council shall remove his name from the list of members, after due notice.

3. On the payment of fifty dollars in one sum, exclusive of initiation fee, any member may become a life member and shall thereafter be exempt from all annual dues.

III.

The times and places of meetings of the Society shall be designated by the Council, but the Annual Meeting shall be held

on a date between the 26th and 31st of December, inclusive; and Regular Meetings shall be held on the last Saturday of February, April, and October, unless otherwise ordered by the Council. Notice of the time and place of each meeting shall be sent by the Secretary to all members of the Society.

• IV.

Whenever it shall appear to the Council that a sufficient number of members of the Society are desirous of conducting in any locality periodic meetings for the reading and discussion of mathematical papers, the Council may authorize the formation of a Section to be composed at each Sectional meeting of such members of the Society as may be present; and the Council shall have the right to withdraw such authorization.

V.

Papers intended for presentation at any meeting or sectional meeting of the Society shall be passed upon in advance of the meeting by a programme committee appointed by or under the authority of the Council; and only such papers shall be presented as shall have been approved by such committee. Papers in form unsuitable for publication, if accepted for presentation, shall be referred to on the programme as preliminary communications or reports.

VI.

1. The order of business at the meetings of the Society shall be as follows:

1. Reading of the minutes.
2. Recommendations and reports.
3. Elections.
4. Miscellaneous business.
5. Presentation and discussion of papers previously approved by the programme committee.

2. No question relative to administration shall be considered at any meeting except the Annual Meeting, without the recommendation of the Council.

VII.

It shall be the duty of each President to deliver an address before the Society at the Annual Meeting at which his term of office expires.

VIII.

1. The President may convvoke the Council whenever the affairs of the Society require it.
2. A request in writing from two members of the Council shall render the convocation obligatory.

IX.

1. The Society shall publish a periodical of critical and historical nature, called the **BULLETIN OF THE AMERICAN MATHEMATICAL SOCIETY**.

2. The **BULLETIN** shall be in charge of the Committee of Publication, which may associate with itself other members of the Society whose editorial assistance it may require.

X.

1. The Society shall publish a periodical which shall have for its object to make known, as widely as possible, the more important researches presented at the meetings of the Society. This periodical shall be called the **TRANSACTIONS OF THE AMERICAN MATHEMATICAL SOCIETY**.

2. The editorial management of the **TRANSACTIONS** shall be entrusted to a committee of three editors, to be appointed by the Council. The three members of the committee appointed in 1899 shall serve respectively until 1902, 1903, and 1904. In and after 1902, annually at the February meeting, the Council shall appoint one member to serve for three years. Members of the committee shall be eligible to reappointment. Vacancies in the committee shall be filled by the Council.

3. The editorial committee shall have power to elect one of its members as editor-in-chief; but if at any time the committee shall report to the Council that it has been unable to agree upon an editor-in-chief, the Council shall designate one of the members of the committee to act as editor-in-chief. The committee shall have power to associate with itself other members of the Society whose editorial assistance it may require.

4. The **TRANSACTIONS** shall not be distributed free to the members of the Society; but members of the Society shall have the right to subscribe to the **TRANSACTIONS** at three-fourths of the advertised price.

XI.

No by-law shall be enacted, amended or suspended, except by a two-thirds vote of the members present at a meeting of the Society, and upon the recommendation of the Council.

ANNUAL REPORTS.

REPORT OF THE TREASURER FOR THE YEAR 1902.

RECEIPTS.

Balance from 1901, cash.....	\$1,247.92
Balance from life membership fund.....	887.18
	<u>\$2,135.10</u>
Annual payments for 1900.....	70.00
Annual payments for 1901.....	255.00
Annual payments for 1902.....	1,315.00
Annual payments for 1903.....	40.00
Payments for fractional parts of 1901.....	1.25
Payments for fractional parts of 1902.....	81.76
Initiation fees for 1901.....	30.00
Initiation fees for 1902.....	145.00
Life membership fees.....	50.00
Sale of Reprints.....	122.17
Sale of BULLETIN by the Secretary.....	87.40
Sale of BULLETIN by The Macmillan Co.....	235.90
Contributions in support of the TRANSACTIONS:	
Bryn Mawr College.....	100.00
Columbia University.....	100.00
Cornell University.....	100.00
The University of Chicago.....	100.00
Subscriptions to the TRANSACTIONS (\$3.75) for 1900.....	7.50
Subscriptions to the TRANSACTIONS (\$3.75) for 1901.....	26.25
Subscriptions to the TRANSACTIONS (\$3.75) for 1902.....	262.50
Subscriptions to the TRANSACTIONS (\$3.75) for 1903.....	7.50
Subscriptions to the TRANSACTIONS (\$4.50) for 1900.....	9.00
Subscriptions to the TRANSACTIONS (\$4.50) for 1902.....	27.00
Subscriptions to the TRANSACTIONS (\$4.50) for 1903.....	13.50
Subscriptions to the TRANSACTIONS (\$5.00) for 1902.....	50.00
Subscriptions to the TRANSACTIONS (\$5.00) for 1903.....	5.00
Sale of TRANSACTIONS by the Secretary.....	4.75
Sale of TRANSACTIONS by The Macmillan Company.....	125.86
Interest on deposit in Fifth Avenue Trust Company.....	37.58
Interest on deposit in Institution for Savings.....	29.10
Exchange33
	<u>\$5,574.45</u>

DISBURSEMENTS.

Expenses of the Secretary's Office.....	\$ 176.33
Expenses of the Treasurer's Office.....	49.25
Expenses of Library.....	116.84
Expenses of the Committee of Publication.....	54.50
Expenses of the Editorial Committee of the TRANSACTIONS	276.55
Publication of BULLETIN (ten numbers).....	1,308.99
Publication of TRANSACTIONS (four numbers).....	1,793.60
Annual Register.....	79.82
Expenses of the Chicago Section.....	52.50
Expenses of the San Francisco Section.....	6.92
Exchange	3.33
	<hr/>
	\$3,918.63
Balance, Dec. 27, 1902, cash.....	689.54
Balance, Dec. 27, 1902, life membership fund... ..	966.28
	<hr/>
	\$1,655.82
	<hr/>
	\$5,574.45

Wm. S. DENNETT,
Treasurer.

NEW YORK, December 29, 1902.

REPORT OF THE AUDITING COMMITTEE.

The Committee appointed by the AMERICAN MATHEMATICAL SOCIETY to audit the accounts of the Treasurer beg to report as follows:

We have examined the statement of receipts, including balance from last account, dues, initiation fees, life membership commutations and sale of publications, and find the sum to be \$5,574.45. We have examined the statement of disbursements, compared it with the vouchers, and find the sum to be \$3,918.63, leaving a balance of \$1,676.64, of which \$32.69 is cash on hand, \$966.28 is in the Institution for the Savings of Merchants' Clerks, and \$677.67 is in the Fifth Avenue Trust Company, subject to three outstanding checks, amounting to \$20.82.

EDWARD B. VAN VLECK,
R. S. WOODWARD,
Auditing Committee.

NEW YORK, December 27, 1902.

REPORT OF THE LIBRARIAN FOR THE YEAR 1902.

During the past year an effort has been made to improve the library in the following respects:

1. To complete the imperfect volumes of the exchanges, and to secure as many back volumes as possible.
2. To establish exchange relations with such of the leading mathematical journals of the world as were not already on the library's list.
3. To interest members in the plan of making the library a depository of their published works, to the end that it might in time become a substantially complete exponent of the country's mathematical thought.

The results have been, in the main, satisfactory, especially in the first and second lines of effort mentioned. We have more than twenty times as many bound volumes of mathematical periodicals upon our shelves as we had one year ago, and our number of exchanges has practically doubled. There are but few important mathematical journals in the world that are not now on our list, and with these we are in correspondence with a view to exchange relations.

As to the third point, much work still remains to be done. Members have been very thoughtful in sending to the library reprints of their articles, and these have been filed alphabetically with a view to future binding. A considerable number of bound volumes have also been contributed by authors and publishers. But the library has only a relatively small number of the published works of its members, and very few of the country's earlier mathematical treatises. Gifts of other mathematical works, of historic interest as well as of scientific importance, particularly of volumes to complete our sets of journals, will be welcome. If the library could, through the interest of its members, maintain the growth of the past year, it would in a short time come to be of exceedingly great value to the Society.

The following table shows the growth of the library during the past year:

	January 1, 1902.	January 1, 1903.	Increase.	Increase per cent.
Volumes of periodicals.....	32	695	663	2,072%
Volumes, non-periodical.....	89	248	159	179%
Periodicals on exchange list.....	64	116	52	81%

There has been considerable use of the library by members of the Society, but it is reasonable to expect that the number of loans will greatly increase as the result of publishing the catalogue appended to this report. A revised list of rules has therefore been prepared and is also appended hereto.

Special mention should be made in this report of the following noteworthy donations:

By Wm. B. Rogers, Esq., through the suggestion of Dr. H. P. Bowditch, Laplace's *Mécanique céleste*, 4 volumes, translated by Bowditch.

By Professor James Mills Peirce, two volumes of the works of the late Professor Benjamin Peirce, from the library of the latter.

By Ginn and Company, 22 volumes; by D. C. Heath and Company, 14 volumes; by The Macmillan Company, 8 volumes; by C. Naud, Paris, 6 volumes; by The Open Court Publishing Company, 5 volumes; by Allyn and Bacon, 3 volumes; by Crane and Company, 2 volumes; by Oliver and Boyd, Edinburgh, 2 volumes; these representing mathematical works published by the donors.

The growth of the library has been secured with only a slight expenditure of the Society's funds, chiefly for stationery and for the postage necessary to effect the exchanges.

DAVID EUGENE SMITH,
Librarian.

NEW YORK, December 24, 1902.

LIBRARY RULES.

1. Applications for books many be made in person, or by letter addressed to the AMERICAN MATHEMATICAL SOCIETY, 501 West 116th St., New York. Members may, if they desire, apply in person directly to the superintendent of the loaning department of the

Columbia University Library, where the Society's library is deposited. Books will be delivered directly to those applying in person, and will be sent to other applicants by express at the expense of the borrowers.

2. A book may be kept four weeks from the date of leaving the library, but the loan may be renewed from time to time by writing to the Society in advance of the day when the book is due.
3. Borrowers should return the books in person or by prepaid express.

CATALOGUE OF THE LIBRARY.

I. LIST OF JOURNALS TAKEN BY THE LIBRARY.

In case the Society has already any bound volumes, these are indicated in the list. Where there are no bound volumes indicated, the journal has recently been placed upon the exchange list, and only the current unbound numbers are in the library. The journals are listed alphabetically according to the places of publication.

AMSTERDAM.

Nieuw Archief voor Wiskunde, Ser. 1, Vols. 1-20; Ser. 2, Vols. 1-4.
Revue semestrielle des Publications mathématiques, Vols. 1-10.
Wiskundige Opgaven met de Oplossingen, Vols. 1-7.

BALTIMORE.

American Journal of Mathematics, Vols. 9-24.

BERLIN.

Abhandlungen der königlichen Akademie der Wissenschaften, 1892-94, 1897, 1901.
Jahrbuch über die Fortschritte der Mathematik, Vols. 15-30.
Sitzungsberichte der königlichen Akademie der Wissenschaften, 1891-1901.

BOLOGNA.

Il Bollettino di Matematica.

BORDEAUX.

Mémoires de la Société des Sciences de Bordeaux, Ser. 4, Vols. 1-5; Ser. 5, Vols. 1-5; Ser. 6, Vol. 1.
Procès-verbaux de la Société des Sciences de Bordeaux, 1894-7, 1898-1901.

BOSTON.

Proceedings of the American Academy of Arts and Sciences, Vols. 26-36; *Memoirs*, Vol. 12.
Technology Quarterly, Vols. 4-14.

BRAY-SUR-SEINE.

Journal des Géomètres-Experts.

BRISBANE, QUEENSLAND.

Proceedings of the Royal Society, Vols. 15-16.

BRUSSELS.

Mémoires de l'Académie Royale des Sciences des Letters et des Beaux Arts.
Mémoires couronnés et Mémoires des Savants étrangers, de l'Académie Royale.

CAMBRIDGE, ENG.

Proceedings of the Cambridge Philosophical Society, Vol. 10.
Transactions of the Cambridge Philosophical Society, Vol. 17.

CAMBRIDGE, MASS.

Annals of Mathematics, Ser. 1, Vols. 1-12; Ser. 2, Vols. 1-3.

CHERBOURG.

Mémoires de la Société Nationale des Sciences Naturelles et Mathématiques de Cherbourg, Vols. 31-32.

CHICAGO.

The Open Court, Vol. 16.
The Astro-Physical Journal, Vols. 1-15.

CHRISTIANIA.

Archiv for Mathematik og Naturvidenskab, Vol. 21.
Forhandlinger i Videnskabs-Selskabet i Christiania, 1899.

CITTÀ DI CASTELLO.

Le Matematiche pure ed applicate, Vol. 1.

COIMBRA.

Jornal de Sciencias mathematicas e astronomicas, Vols. 9-14.

COPENHAGEN.

Nyt Tidsskrift for Matematik, Vols. 11-12.

CRACOW.

Bulletin International de l'Academie des Sciences de Cracovie, 1901.

DUBLIN.

Scientific Proceedings of the Royal Dublin Society.
Scientific Transactions of the Royal Dublin Society, Ser. 1, Vol. 7; Ser. 2, Vols. 1-13.

EDINBURGH.

Proceedings of the Mathematical Society of Edinburgh, Vols. 1, 11-19.
Proceedings of the Royal Society of Edinburgh, Vols. 3-4, 10-12, 15-23.
Transactions of the Royal Society of Edinburgh.

ERLANGEN.

Sitzungsberichte der physicalisch-medicinischen Societät zu Erlangen, 1893-99.

FORT MONROE.

Journal of the United States Artillery, Vols. 1-17.

GLASGOW.

Proceedings of the Glasgow Philosophical Society, Vol. 30.

GHENT.

Mathesis, Ser. 2, Vols. 4-10; Ser. 3, Vol. 1.

GÖTTINGEN.

Nachrichten, Mathem.-Physik. Klasse, 1892-93, 1895-99, 1901.
Nachrichten, Geschäftliche Mittheilungen, 1894-1901.

GRENOBLE.

Annales de la Faculté des Sciences de l'Université de Grenoble, 1901.

HALIFAX.
Proceedings and Transactions of the Nova Scotia Institute of Sciences, Ser. 2, Vols. 1-2.

HAMBURG. See LEIPZIG.

ITHACA.
Bulletin of the American Physical Society, Vols. 1-2.
Journal of Physical Chemistry, Vols. 1-5.

KASAN.
Bulletin de la Société physico-mathématique de Kasan, Vols. 1-5, 7-11.

KHARKOV.
Communications de la Société mathématique de Kharkov, Ser. 2, Vols. 5-6.

LAWRENCE.
Kansas University Quarterly, Ser. A, Vol. 9.

LEGHORN.
Periodico di Matematica, Ser. 2, Vols. 1-2.
Supplemento to the Periodico di Matematica, Vols. 2-4.

LEIPZIG.
Archiv der Mathematik und Physik, Ser. 3, Vols. 1, 2.
Sächsische Gesellschaft der Wissenschaften. Berichte, Vol. 52.
Bibliotheca Mathematica, 1887-1901.
Jahresbericht der Deutschen Mathematiker-Vereinigung, Vols. 5-8; New Ser., Vol. 1. (2 sets.)
Mathematische Annalen, Vols. 41-43, 45-55.
Mittheilungen der mathematischen Gesellschaft in Hamburg.
Zeitschrift für Mathematik und Physik, Vols. 44-47.

LICK OBSERVATORY, MT. HAMILTON.
Lick Observatory Contributions, Vols. 3-5.

LIÉGE.
Mémoires de la Société Royale des Sciences de Liége, Ser. 2, Vols. 19-20; Ser. 3, Vols. 1-3.

LIMA.
Revista de Ciencias, Vol. 4.

LONDON.
Educational Times, 1897-1901.
Journal of the Institute of Actuaries, Vols. 35-36.
Philosophical Transactions of the Royal Society, Ser. A, Vols. 192-197.
Proceedings of the London Mathematical Society, Vols. 1-33.
Proceedings of the Royal Society, Vol. 62-70.
The Mathematical Gazette, Vol. 1.

MADRID.
Archivo de matemáticas, 1896-1897.

MANCHESTER.
Memoirs and Proceedings of the Manchester Literary Society, Vols. 37-46.

MARSEILLES.
Annales de la Faculté des Sciences de Marseilles, Vol. 11.

MEXICO.
Memorias y Rivista de la Sociedad Científica Antonio Alzate, Vols. 2-12, 14-16.

MILAN.
Annali di Matematica pura ed applicata, Ser. 3, Vols. 2, 4-5, 7.

MONTPELLIER.

Mémoires de l'Académie des Sciences de Montpellier, Ser. 2,
Vols. 1-2.

MOSCOW.

Transactions of the Mathematical Society of Moscow, Vols.
14-22.

MUNICH.

Hochschul-Nachrichten.

NAPLES.

Atti dell' Accademia delle Scienze fisiche e matematiche di Napoli,
Ser. 2, Vols. 8-10.
Rendiconti dell' Accademia delle Scienze fisiche e matematiche di Napoli, Vols. 34-40.

NEW YORK.

Bulletin of the American Mathematical Society, Vols. 1-8.
Bulletin of the New York Mathematical Society, Vols. 1-3.
(2 sets.)
Papers and Transactions of the New York Actuarial Society,
Vols. 1-6.
Transactions of the American Mathematical Society, Vols. 1-3.
(2 sets.)

NORTHFIELD.

Astronomy and Astro-Physics, 1892-94.
Popular Astronomy, Vol. 10.

ODESSA.

Viestnik Opytnoy Fisiki, Vol. 24.

PALERMO.

Atti dell' Accademia di Scienze di Palermo, Ser. 3, Vol. 5.
Il Pitagora, 1896-1901.
Rendiconti del Circolo matematico di Palermo, Vols. 1-15.

PARIS.

Bulletin de la Société mathématique de France.
Bulletin de la Société philomatique de Paris.
Comptes rendus de l' Académie des Sciences de Paris.
L' Enseignement mathématique, Vol. 4.
L' Intermédiaire des Mathématiciens, Vols. 4-8.
Journal de Mathématiques pures et appliquées, Ser. 5, Vols. 1-6.
Revue générale des Sciences.
Revue spéciale de Mathématiques.

PHILADELPHIA.

Transactions of the American Philosophical Society, Vol. 20.
Proceedings of the American Philosophical Society, Vols. 29-40.

PISA.

Annali della Scuola normale superiore, Vols. 1-8.

PRAGUE.

Casopis pro pěstování mathematiky a fysiky (Journal of Mathematics and Physics), Vols. 21, 23-25, 27-31.
Vestnik Královské České Společnosti Náuk (Proceedings of the Bohemian Academy of Sciences), 1899-1901.

ROME.

Atti dell' Accademia dei Lincei, Ser. 5.
Memorie della Pontificia Accademia dei Nuovi Lincei, Vol. 18.
Rendiconti dell' Accademia dei Lincei.

SAN FRANCISCO.

Publications of the Astronomical Society of the Pacific, Vols. 1-13.

SPRINGFIELD, Mo.

The American Mathematical Monthly, 1894-1900.

ST. LOUIS.

Transactions of the St. Louis Academy of Sciences, Vols. 5-11.

ST. PETERSBURG.

Bulletin de l'Académie des Sciences.

STOCKHOLM.

Acta Mathematica, Vols. 22-24.

STUTTGART.

Mathematisch-naturwissenschaftliche Mitteilungen, Ser. 2, Vols. 1-4.

Zeitschrift für Vermessungswesen.

TOKYO.

Sugaku-Butsurigaku Kwai Kiji (Journal of the Physico-Mathematical Society of Tokyo), Vols. 2-4, 7.

TOULOUSE.

Annales de la Faculté des Sciences de l'Université de Toulouse, Ser. 1, Vols. 7-12; Ser. 2, Vols. 1-3.

Bulletin de l'Académie des Sciences de Toulouse, Vol. 3.

Mémoires de l'Académie des Sciences de Toulouse.

TURIN.

Atti della Reale Accademia di Scienze di Torino, Vols. 30-36.

Memorie della Reale Accademia di Scienze di Torino, Ser. 2, Vols. 48-51.

Revue de Mathématiques, 1891-1900.

Formulaire de Mathématiques, Vols. 1-4.

VIENNA.

Monatshefte für Mathematik und Physik, Vols. 1-13.

Sitzungsberichte der kaiserlichen Akademie der Wissenschaften in Wien.

WARSAW.

Travaux de la Société de Naturalistes, Imp. Université de Warsaw,

Vols. 1-3.

Prace matematyczno-fizyczne, Vols. 1-12.

Wiadomości matematyczne, 1897-1901.

ZARAGOZA.

Revista trimestral de Matemáticas, Vol. 1.

ZURICH.

Vierteljahrsschrift der naturforschenden Gesellschaft, Vols. 41-46.

II. BOOKS IN THE LIBRARY, EXCLUDING JOURNALS.

(Arranged alphabetically by authors, except in cases of compilations.)

ALASIA, CRISTOFORO, Calcolo grafico ed applicazioni alla statica grafica, Città di Castello, 1899.

Esercizi ed applicazioni di calcolo infinitesimale ed integrale, Città di Castello, 1898.

I complementi di geometria elementare, Milano, 1903.

La recente geometria del triangolo, Città di Castello, 1900.

AMSLER, JAKOB, Ueber die mechanische Bestimmung des Flächeninhaltes, der statischen Momente und der Trägheitsmomente ebener Figuren, insbesondere über einen neuen Planimeter, Schaffhausen, 1856.

ANDOYER, H., Théorie de la lune, 1902.

ANDREAS, E., Ueber den specifischen Grenzmagnetismus permanenter Stahlmagnete, Berlin, 1897.

Annuaire de l'académie royale des sciences de Belgique, 1902, Bruxelles, 1902.

APPELL, P. E., Notice sur les travaux scientifiques de Paul Appell, Paris, 1892.

ATKINSON, E. H. DE V., Text-book of practical solid geometry, etc., for use of the Royal military academy, Woolwich, London, 1901.

BÄCKLUND, A. V., Bidrag till theorien för vågrörelson i ett gasartadt medium, Stockholm, 1886, 1887, 1888.

En undersökning inom theorien för elektriska strömmarne, Stockholm, 1893-1897.

Om några egenskaper hos den plana kurvan af tredje ordningen, Stockholm, 1871.

Om geometriska kurvor med dubbel krökning, Lund, 1871.

BÄCKLIN, G., Om partiella differentialeqvationer af ordningen meden beroende och två oberoende variabler, Dissertation, Upsala, 1890.

BAKER, A. L., Elements of solid geometry, Boston, 1893.

BARDEY, E., Aufgabensammlung, 2 Auflage. Leipzig, 1902.

BARTON, S. M., An elementary treatise on the theory of equations, Boston, 1899.

BEMAN, W. W., and **SMITH, D. E.**, Elements of algebra, Boston, 1899.

Higher arithmetic, Boston, 1900.

New plane and solid geometry, Boston, 1900.

Plane and solid geometry, Boston, 1898.

See also **DEDEKIND**; **FINK**; **KLEIN**; **ROW**.

BERNHARD, MAX, Lineare Schaaren von Kurven und Flächen, Stuttgart, 1897.

BJÖRLING, C. F. E., Theori för algebraiska equationers rötter, Dissertation, Stockholm, 1871.

BLAKE, E. M., Method of indeterminate coefficients and exponents applied to differential equations, New York, 1893.

BÖCHER, MAXIME, Ueber die Reihenentwickelungen der Potentialtheorie ..., mit einem Vorwort von Felix Klein, Leipzig, 1894.

BOWDITCH, N., See **LaPlace**.

BOWSER, E. A., College algebra, Boston, 1900.

Treatise on plane and spherical trigonometry and its applications to astronomy and geodesy, Boston, 1898.

BRODEN, T., *Functionentheoretische Bemerkungen und Sätze*, Lund, 1897.
 Om rotationsystors deformation, Lund, 1886.

BROOKS, E., *Philosophy of arithmetic as developed from... synthesis, analysis and comparison... also a history of arithmetic*, Revised edition, Philadelphia, 1901.

BRUN, FRANZ DE, *Bidrag till Weierstrass' teori för algebraiska funktioner*, Upsala, 1895.

BRUSÜN, AXEL, *Studier ofver några funktionalekvationer*, Stockholm, 1897.

BURALI-FORTI, C., *Introduction à la géométrie différentielle, suivant la méthode de H. Grassmann*, Paris, 1897.
Logica matematica, Milan, 1894.

BYERLY, W. E., *Elements of the differential calculus, with examples and applications*, Boston, 1880.
Elements of the integral calculus, with a short key to the solution of differential equations and a short table of integrals, Boston, 1898.

CAJORI, F., *Teaching and history of mathematics in the United States*, Washington, 1890.

CAMBRIDGE (Eng.), *Philosophical Society, list of fellows, members and... societies... to which the publications of the society are sent*, Cambridge, 1901.
Memoirs presented... on the occasion of the jubilee of Sir George Gabriel Stokes, Cambridge, 1900.

CAPELLI, A., *Lezioni di algebra complementare*, Naples, 1895.

CARLSRUHE (Ger.), *Technische Hochschule. Festgabe zum Jubiläum der vierzigjährigen Regierung seiner Königlichen Hoheit des Grossherzogs Friedrich von Baden*, Karlsruhe, 1892.

CARVALLO, E., *L'électricité déduite de l'expérience et ramenée au principe des travaux virtuels*, Chartres, 1902.

CASSEL, G., *Kritiska studier öfver teorin för de automorfa funktionerna jämte deras användning för integration af linjära differential-ekvationer*, Dissertation, Upsala, 1894.

CASTRO, ALVAREZ DE, *Soluzione grafica della trisezione dell' angolo*, Rome, 1899.

CHAPMAN, C. H., *Elementary course in the theory of equations*, New York, 1892.

CHEVREL. See Fitz-Patrick.

CLAIRIN, J., *Sur les transformations de Bäcklund*, Theses, Paris, 1902.

COLLINS, J. V., *Text-book of algebra through quadratic equations*, Chicago, 1901.

COMPTE RENDU du 2 congrès international des mathématiciens, Paris, 1900; Paris, 1902.

COPPONS, M., *Examen de la théorie et pratique de M. Necker, dans l'administration des finances de la France*, 1785.

COULON, J., *Sur l'intégration des équations aux dérivées partielles de second ordre par la méthode de caractéristiques*, Theses, Paris, 1902.

DAVIS, E. W., *Introduction to the logic of algebra*, New York, 1894.

DAVIS, J. W., *Theoretical astronomy; dynamics of the sun*, New York, 1901.

DAVISSON, S. C., *Ueber die geodätische Linie der Mannigfaltigkeit*, Dissertation, Tübingen, 1900.

DEDEKIND, R., *Essays on the theory of number*, translated by W. W. Beman, Chicago, 1901.

DELAGRAVE, C. M. E., *Tables des logarithmes à cinq décimales des nombres naturels de 1 à 10000 et tables des logarithmes à cinq décimales des sinus, cosinus...* Paris, 1902.

DELIN, C., *Ueber zwei ebene Punktsysteme die algebraisch auf einander bezogen sind*, Lund, 1893.

DICKSON, L. E., *Linear groups with an exposition of the Galois field theory*, Leipzig, 1901.

DICKSTEIN, S., *Hoene Wronski jego życie o prace . . .* Cracow, 1896.

DIEZ, ASTENGO Y, *La caudratura del circulo; problema resuelto científicamente*, Montevideo, 1898.

DUBLIN UNIVERSITY, *Examination papers, 1901*, Dublin, 1902.

Index to the scientific proceedings and transactions, 1877-98, Dublin, 1899.

DURFEE, W. P., *Elements of plane trigonometry*, Boston, 1901.

EDALJĪ, JAMSHEDJĪ, *Associated conics*, Ahmedabad, 1898.

Reciprocal polygons, Ahmedabad, 1898.

Reciprocally related figures and the principle of continuity, Ahmedabad, 1900.

END, W., *Algebraische Untersuchungen über Flächen mit gemeinschaftlicher Curve*, Dissertation, München, 1888.

FAYE, H. A. E. L., *Teoria de los errores*; tr. del Francés, Mexico, 1888.

FERRELL, J. A., *Advanced arithmetic*, Topeka, 1901.

Teachers' and students' manual of arithmetic; a guide to the systematic study of problems, Topeka, 1899.

FESTSCHRIFT, herausg. von der Mathematischen Gesellschaft in Hamburg, 2 Teil, Leipzig, 1890.

FINK, K., *Brief history of mathematics*, translated by W. W. Beman and D. E. Smith, Chicago, 1900.

FISHER, G. E., and SCHWATT, I. J., *Complete secondary algebra*, Philadelphia, 1901.

Elements of algebra with exercises, New York, 1902.

Higher algebra, Philadelphia, 1901.

Rudiments of algebra, Philadelphia, 1901.

School algebra with exercises, Philadelphia, 1899.

Secondary algebra, New York, 1902.

FITZ-PATRICK, J., and CHEVREL, G., *Exercices d'arithmétique énoncés et solutions*, avec une préface de Jules Tannery, Paris, 1893.

FORSYTH, A. R., *Theory of differential equations*, Cambridge (Eng.), 1902.

Theory of functions of a complex variable, Cambridge (Eng.), 1900.

FREDHOLM, I., *Sur les équations de l'équilibre d'un corps solide élastique*, Stockholm, 1898.

GILLISS, J. M., *Catalogue of 16748 southern stars deduced by the United States Naval Observatory from the zone observations made at Santiago de Chile by the U. S. naval astronomical expedition to the southern hemisphere*, Washington, 1895.

GLASER, R., *Ueber die Minimal-Flächen*, Dissertation, Tübingen, 1891.

GECK, E., *Ueber die singulären Punkte algebraischer Flächen*, Dissertation, Tübingen, 1900.

GOULD, S., *Bibliography on the polemic problem, what is the value of π ...*, Manchester, N. H., 1888.

GOURSAT, E. J. B., *Cours d'analyse mathématique*, Paris, 1902.
Leçons sur l'intégration des équations aux dérivées partielles du premier ordre; faites à la Faculté des sciences de Paris aux candidats à l'agrégation, et rédigées par C. Bourlet, Paris, 1891.

GRANE, N., *Üeber Kurven mit gleichartigen successiven Developpoiden*, Dissertation, Lund, 1894.

GREAT BRITAIN, Science and art department, *Report of the examiner on the results of the examination in elementary practical mathematics held on May 17, 1899*, London, 1899.

GROAT, B. F., *Seven lessons in theory of inversions of order and determinants*, Minneapolis, 1902.

HAGEN, J. G., *Synopsis der höheren Mathematik*, Berlin, 1889–94.

HADAMARD, J., *La série de Taylor et son prolongement analytique*, Evreux, 1901.

HALLGREN, E., *Om beräkningen af Abelska integralers omvändning*, Göteborg, 1894.

HALSTED, G. B., *Metrical geometry; an elementary treatise on mensuration*, Boston, 1900.
 See LOBACHEVSKY.

HANCOCK, H., *Mémoire sur des systèmes modulaires de Kronecker*, Thesis, Paris, 1901.

HARDY, A. S., *Elements of analytic geometry*, Boston, 1899.
Elements of quaternions, Boston, 1895.
Elements of the differential and integral calculus; method of rates, Boston, 1901.

HARKNESS, W., *Solar parallax and its related constants including the figure and density of the earth*, Washington, 1891.

HEDRICK, E. R., *Ueber den analytischen Character der Lösungen von Differentialgleichungen*, Dissertation, Göttingen, 1901.

HELSINGFORS, Polytekniska institutet. *Polytekniska institutet i Finland 1849–1899*. Helsingfors, 1899.

HEETING, G., *Ueber die gestaltlichen Verhältnisse der Flächen dritter Ordnung und ihrer parabolischen Kurven*, Dissertation, Augsburg, 1887.

HEUMAN, C., *Operationsteoretisk framställning af teorien för finita för flyttningar*, Stockholm, 1899.

HOLMAN, S. W., *Discussion of the precision of measurements, with examples...from physics and electrical engineering*, New York, 1892.

HOLMQUIST, B., *Ueber Beziehungen zwischen binären und ternären Formensystemen*, Dissertation, Lund, 1898.

HOPKINS, G. I., *Manual of plane geometry on the heuristic plan, with ... theorems and problems for advance work*, Boston, 1901.

INTERNATIONAL geodetic association, *Comptes-rendus des séances de la treizième conférence générale réunie à Paris du 25 Septembre au Octobre 1900, rédigés par H. J. van de Sande Bakhuyzen*, Berlin, 1901.

ISELY, L., JR., *Histoire des sciences mathématiques dans la suisse française*, Neuchâtel, 1901.

JABLONSKI, M. E., *Théorie des équations suite aux compléments d'algèbre avec de nombreux exercices*, Paris, 1891.

JAROLIMEK, V., *Deskriptivinf geometrie pro vyšší školy realné; vydání čtvrté dle nové osnovy zpracované*, Praze, 1900.

Geometrie pro nížší tridy škol realných; vydání čtvrté dle nové osnovy upravené, Praze, 1901.

JOHNSON, W. W., *Curve tracing in cartesian coördinates*, New York, 1884.

Elementary treatise on the integral calculus founded on the method of rates or fluxions, New York, 1887.

Elementary treatise on differential calculus, founded on the theory of rates or fluxions, New York, 1879.

See RICE.

JUNKER, F., *Ueber algebraische Korrespondenzen*, Dissertation, Tübingen, 1889.

KAZAN UNIVERSITY, *Celebration at the Imperial Kazan University; centennial festival of the birth of N. I. Lobachevsky*, Kazan, 1894.

KIMARA, S., *Lectures on quaternions*. Tokyo.

KLEIN, F., *Famous problems of elementary geometry*, translated by W. W. Beman and D. E. Smith, Boston, 1897.

On Riemann's theory of algebraic functions and their integrals, translated by Francis Hardcastle, Cambridge (Eng.), 1893.

Anwendung der Differential und Integralrechnung auf Geometrie, eine Revision der Principien. Vorlesung ..., ausgearbeitet von Conrad Müller, Leipzig, 1902.

KOCH, H., *Sur une application des déterminants infinis à la théorie des équations fonctionnelles*, Stockholm, 1899.

KOLÁČEK. See Prague.

KOMMERELL, K., *Die Krümmung der zweidimensionalen Gebilde im ebenen Raum von vier Dimensionen*, Tübingen, 1897.

KÖSTLIN, W., *Ueber Singularitäten ebener algebraischer Curven*, Dissertation, Dresden, 1895.

KURTEN, L., *Ett problem angående krökningslinjerna på andra gradens ytor löst med till hjälp af paraboliska och elliptiska koordinater och elliptiska funktioner*, Dissertation, Helsingfors, 1893.

LACHLAN, R., *Elementary treatise on modern pure geometry*, London, 1893.

LANE, A., *Adjustments of the compass, transit and level*, Boston, 1886.

LAMPE, E., *Die Entwicklung der Mathematik im Zusammenhange mit der Ausbreitung der Kultur*, Berlin, 1893.

LAPLACE, MARQUIS DE, *Mécanique céleste*. Translated by N. Bowditch. 4 vols., Boston, 1829-39.

LAURIN, P., *Sur la transformation isogonale définie par une fonction rationnelle*, Dissertation, Lund, 1887.

LAZZERI, G., *Manuale de trigonometria sferica*, Livorno, 1901.

LINDELÖF, E., *Sur les systèmes complets et le calcul des invariants différentiels des groupes continus finis*, Dissertation, Helsingfors, 1893.

LORIA, G., *Le Trasfigurazioni di una Scienza, e Donne matematiche*, 2d ed., Mantova, 1902.

LJUNGH, A. T., *Ueber isoptische und orthoptische Kurven*, Dissertation, Lund, 1895.

LOBACHEVSKY, N. I., Geometrical researches on the theory of parallels; transl. by G. B. Halsted, Austin, 1891.

LONDON MATHEMATICAL SOCIETY, List of members from the date of foundation, 16th January, 1865, to 9th of November, 1899, London, 1900.

LOVE, A. E. H., Treatise on the mathematical treatise of elasticity, Cambridge (Eng.), 1892.

MC AULEY, A., Octonions; a development of Clifford's biquaternions, Cambridge (Eng.), 1898.

MALMBORG, M., Om integrationen af en klass af lineära differentialekvationer med dubbelperiodiska koefфиcienter, analog med de S. K. Hermite'ska differentialekvationerna, Dissertation, Upsala, 1897.

MANCHESTER, J. E., Ueber Singularitäten ebener Kurven, Dissertation, Tübingen, 1899.

MANGOLDT, H. K. E., Bilder aus der Entwicklung der reinen und angewandten Mathematik während des neunzehnten Jahrhunderts. Festrede der Königlichen technischen Hochschule zu Aachen 1900, Aachen, 1900.

MANNING, H. P., Non-Euclidean geometry, Boston, 1901.

MASCHERONI, L., La geometria del compasso, new ed., Pavia, 1901.

MÉMOIRES couronnés et mémoires des savants étrangers publ. par l'Acad. Royale de Belgique, Vol. 58, Bruxelles, 1899-1900.

MICHIGAN MINING SCHOOL, Reports of the director, 1890-92, Lansing, 1893.

MINER, G. W., Accounting and business practice, Boston, 1902.

MONTCHEUIL, M. DE, Sur une classe de surfaces, These, Paris, 1902.

MUKHOPADHYAY, A., Elementary treatise on the geometry of conics, London, 1893.

NÉCULCÉA, E., Le phénomène de Kerr et les phénomènes électro-optiques, Paris, 1902.

NICHOLS, E. W., Analytic geometry for colleges, universities and technical schools, Boston, 1900.

Differential and integral calculus with applications; for colleges, universities and technical schools, Boston, 1900.

NILSSON, G., Sur les équations fonctionnelles, Upsala, 1899.

OSGOOD, W. F., Introduction to infinite series, Cambridge, Mass., 1897.

Introduction to infinite series, 2d ed., Cambridge, 1902.

PALERMO, Circolo matematico, Annuario, 1898, 1900 Palermo, 1898, 1900.

PASCAL, E., Eugenio Beltrami; discorso letto al Reale istituto Lombardo di scienze e lettere, Milan, 1901.

PEANO, G., Notations de logique mathématique, introduction au formulaire de mathématique publié par la "Rivista di matematica," Turin, 1894.

PEIRCE, B., Linear associative algebra, New York, 1882.

Physical and celestial mechanics, developed in four systems of analytic mechanics, celestial mechanics, potential physics and analytic morphology, Boston, 1855.

PENNSYLVANIA UNIVERSITY publications, Contributions to the geometry of the triangle, Philadelphia, 1897.

POLIS, P., Die Strömungen der Luft in den barometrischen Minima und Maxima; ein Beitrag zur Theorie der Cyklonen und Anticyklonen, Dissertation, Hamburg, 1899.

PORTA, F., Discussioni delle equazioni generali delle coniche e delle quadriche in coördinate cartesiane, Turin, 1893.

PRAGER TYCHONIANA, 5 pamphlets relating to Tycho Brahe, Prag, 1901-1902.

PRAGUE, Jednota českých matematik Sborník, Vol. 1, Weyr, E., Projektioná geometria; Vol. 2, Kolacek, František, Hydrodynamika; Vol. 3, Studnička, F. J., Úvod do nauky o determinantech; Vol. 4, Strouhal, Čeněk, Mechanika; Vol. 5, Weyr, E., Počet differenciálny; Prague, 1898.

PRESSLAND, A. J. and TWEEDIE, C., Elementary trigonometry, Edinburgh, 1900.

RAOULT, F. M., Cryascopic, Paris, 1901.

RICE, J. M., and JOHNSON, W. W., Elementary treatise on the differential calculus founded on the method of ratio or fluxions, New York, 1879.

RIDDEL, J., Practical plane and solid geometry, Edinburgh, 1899.

RIPERT, L., La dualité et l'homographie dans le triangle et le tétraèdre, Paris, 1898.

ROBERTS, R. A., Treatise on the integral calculus, Dublin, 1887.

ROE, E. D., Die Entwicklung der Sylvester'schen Determinante nach normal Formen, Leipzig, 1898.

ROW, T. S., Geometric exercises in paper folding, edited and revised by W. W. Beman and D. E. Smith, Chicago, 1901.

ROYAL SOCIETY OF LONDON, Year-book, 1896-98, London, 1897-98.

RUPERT, W. W., Famous geometrical theorems and problems, with their history, Boston, 1900-01.

RUSSELL, J. W., Elementary treatise on pure geometry, with numerous examples, Oxford, 1893.

RYDBERG, J. R., Konstruktioner af kägelsnitt i 3-och 4-punktskontakt, Dissertation, Lund, 1879.

SAUERBECK, P. J., Ueber die Raumkurve VI. Ordnung mit vier wirklichen Doppelpunkten, Dissertation, Tübingen, 1889.

SCHMIDT, W., Heron of Alexandria, Leipzig, 1899.

SCHUBERT, H., Mathematical essays and recreations; translated from the German by T. J. McCormack, Chicago, 1898.

SCHÜLKE, A., Aufgaben-Sammlung aus der Arithmetik, Geometrie, Trigonometrie und Stereometrie, Leipzig, 1902.

SCHWATT. See FISHER.

SEE, T. J., Researches on the evolution of the stellar systems, Lynn, 1896.

SMITH, D. E., Teaching of elementary mathematics, New York, 1901.
See also BEMAN (W. W.); FINK; KLEIN; ROW.

SMITH, W. B., Infinitesimal analysis, New York, 1898.

SMITHSONIAN INSTITUTION, Reports, 1885-87, 1889-90, 1895-1900, Washington.

SNYDER, V., and HUTCHINSON, J. I., Differential and integral calculus, New York, 1902.

SOMMER, J., Ueber die Bestimmung ausgezeichneter Punktgruppen auf Kurven, Dissertation, Tübingen, 1898.

SQUIER, G. O., Electro-chemical effects due to magnetization, 1893.

STEINER, G. F., Ueber die katakaustiken algebraischen ebenen Curven, Lund, 1896.

STROUHAL. See Prague.

STUDNICKA. See Prague.

TAFTL, E., Algebra. pro vyšší třídy středních škol českých páté vydání pro gymnasia, Praze, 1901.

TAYLOR, D. W., Resistance of ships, New York, 1893.

TAYLOR, J. M., An academic algebra, Boston, 1893.
A college algebra, Boston, 1889.
Elements of algebra, Boston, 1900.
Elements of the differential and integral calculus, Boston, 1897;
rev. ed., Boston, 1900.

TEICHMÜLLER, J., Die elektrischen Gleichstromleitungen mit Rücksicht auf ihre Elastizität, Stuttgart, 1898.

TISELIUS, H. A., Om dödlighets-, premie- och vinsterberäkningar inom lifförsäkringsteorien, Stockholm, 1893.

TORONTO UNIVERSITY, Examination papers for 1901, Toronto, 1901.
Mathematical and physical society, papers read before the society during the years, 1890-92, Toronto, 1891.

TURIN UNIVERSITY, Osservatorio, Osservazioni meteorologiche fatte... calcolate dal... Luigi Carnera, Turin, 1901.

TWEEDIE, C., see PRESSLAND, A. J.

UNITED STATES NAVAL OBSERVATORY, Publications, 2d series, Vol. 1, 2.

VASILÉV, A., P. L. Tchebychev und seine wissenschaftlichen Leistungen, Leipzig, 1900.

VOGT, H., Elements de mathématiques supérieures, Paris, 1901.

WELLS, W., College algebra, Boston, 1899.
Essentials of algebra for secondary schools, Boston, 1901.
Essentials of geometry, Boston, 1899.
New higher algebra, Boston, 1899.
New plane and spherical trigonometry, Boston, 1900.
Six place logarithmic tables with a table of natural sines, cosines, tangents and cotangents, Boston, 1900.

WENTWORTH, G. A., A college algebra, Boston, 1901.
A college algebra, revised, Boston, 1902.
Higher algebra, Boston, 1901.
New school algebra, Boston, 1901.
Plane and spherical trigonometry and tables, Boston, 1901.
Plane and solid geometry, Boston, 1901.

WEYR, E., Počet differenciálny, Praze, 1902.
Projektivná geometrie. Útvary prvního rádu, Praze, 1898.

WINTERHALTER, A. G., International astrophotographic congress and a visit to certain European observatories and other institutions, Washington, 1889.

ZIWET, A., Elementary treatise on theoretical mechanics, New York, 1893.

